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ABSTRACT

Issues related to the compilation of a comprehensive statewide plan for postsecondary education in Alaska are addressed. The following areas are examined: planning, coordination, and evaluation: academic program planning and review: student entrance and passage through the Alaska system of postsecondary education: financial support, allocation, and efficiency: facilities planning: and proposed statewide procedure in preparing the Alaska Masterplan for Postsecondary Education. Among the considerations under planning, coordination and evaluation are data collection and management, computerized data and information systems, accountability, external review, and the role of the Alaska Commission of Postsecondary Education. Academic program planning and review considerations include the systems concept, program delivery, program review, review indicators, manpower requirements and projections, maintenance of quality, and consumer protection and disclosure requirements. Additional areas include: equal opportunity, state student financial aid, resource allocation methods, public and private sharing of facilities, and facilities utilization. Appendices include: academic review procedures and criteria: recommendations regarding institutional authorization for consumer protection: a proposal for an educational information network in Alaska: proposed community college funding formula: and facilities inventory and utilization standards and measures. (SW)

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A Discussion of Issues and Guides for Conducting Postsecondary Educational Planning in Alaska

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Alaska Commission on Postsecondary Education

A DISCUSSION OF ISSUES AND GUIDES FOR CONDUCTING POSTSECONDARY EDUCATIONAL PLANNING IN ALASKA

ALASKA COMMISSION ON POSTSECONDARY EDUCATION
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JUNEAU, ALASKA 99811

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CHAPTER I

Introduction

Many attempts, both successful and unsuccessful, at planning for elements of postsecondary education in Alaska have been made during the recent past. These attempts have been made by a wide variety of concerned educators, legislative committees, consultants, Native organizations, educational institutions, and various administrative agencies. Much of the work done in this area has actually been more description and identification of needs rather than true planning and that which can be classified as planning is almost exclusively tactical as opposed to long-range planning.

The value of long-range planning is still questioned in some quarters, especially when it deals at a state level and seems to bear little relationship to the day-to-day operations of institutions and agencies concerned with postsecondary education. Contrary to what some believe, planning is not making decisions now about what to do in the future. Rather, it is an attempt to develop an explicit design for the future which will organize variables into a coherent pattern so as to provide a structured frame of reference within which future decisions can be made more effectively when the time comes to make them. Actually, then, planning can be viewed as an attitude as much as a process.

As was mentioned, an exclusively large majority of the planning done in Alaska has been tactical as opposed to long-range or strategic. Some explanation and definition of the terms seems appropriate. Strategic planning should reflect the fundamental assumptions a state and its citizens have about postsecondary education. It is subject to few changes between major policy cycles and ought to reflect the fundamental assumptions about postsecondary education, long-range societal objectives and goals, and the principal missions, roles and functions of all postsecondary educational institutions, segments and agencies. This is the type of information usually contained in a state's master plan for postsecondary education. The specific topics to be included are relative since each master plan contains a unique selection of topics which reflect the individual pattern of the state - a pattern that distinguishes, although imperfectly, between subject matter requiring central decision-making (and thus suitable for inclusion in the master plan) and topics for which decisions at the campus or institutional level are more appropriate. Under certain circumstances practically any topic in postsecondary education could be considered legitimate for inclusion in a master plan.

Tactical planning, on the other hand, takes place within the parameters of strategic planning. Its components should include short and intermediate range goals, developmental time frames, and the step-by-step means of achieving strategic goals. The specific topics included may be concerned with any element of postsecondary education, as could strategic planning. Some of the diverse items included in both strategic or tactical planning are: articulation between community colleges, vocational-technical institutes and four-year schools; reduction in duplication of courses and programs; modes of cooperation between public and private institutions; new programs of instruction; new campus sites; research and public service, innovative program development and encouragement of means of expanding lifelong learning; student aid; building programs and priorities; contracts for scarce services; budget formulas and processes; and management systems.

Strategic planning, then, is more appropriate to a state master planning effort, while tactical planning is more appropriate to an institutional-level plan. As pointed out by Brown (1976):

> "Compared with the institutional plan, generally the state plan discriminates more of its variables quantitatively than qualitatively; utilizes comprehensive data to measure the perimeters of the system; places emphasis on such areas as statewide educational opportunities, differential functions and programs, faculty demand and supply, relations with state government and procedures for equitable distribution of funds; formulates policy controls and coordinative organization; displays great sensitivity to broad, public-sentiment pressures, particularly those arising from taxpayers and legislatures" (pages 22-23).

Brown goes on later to contrast this with the emphasis of institutional plans which include areas such as student selection, curriculum revision, faculty recruitment and deployment, need for facilities, and funding requirements. Thus, it is apparent that although there is overlap between institutional-level and state-level plans there are some general guidelines as to what should be included in each.

The need for a statewide master plan is many times justified, especially recently, as a framework for institutional accountability, and this is certainly true. But it should be much more than that as Heclo (1975) warns:

> "Watergate was a reminder that we must judge public organizations not only by what they do but by how they do it ... This reminder was particularly timely after some years during which concern for outputs had almost totally eclipsed concern over the standards governing the production of those outputs" (pages 80-81).

Therefore, the master plan should be concerned with means as well as ends. This concern seems particularly appropriate in Alaska at this time as is evidenced by the current University of Alaska financial situation.

Regardless of how one defines it, however, planning has become an activity of increasing importance to institutions and agencies at all levels in postsecondary education. In the State of Alaska, as elsewhere, the decade of the '70's has brought with it many phenomena which make continuous formalized planning not only necessary, but urgent.

Current Situation

Much of what is postsecondary education in Alaska falls under the aegis of the University of Alaska system. A system staff is maintained at the Fairbanks campus, ostensibly to provide coordination and direction for the many elements which comprise the system. Under the guidance of the University Board of Regents the system organization has attempted to perform some coordinated system planning but have been hampered in many areas. The rapid growth in the institutions comprising the system, student enrollments and associated faculty and facilities has tended to keep reality several steps ahead of planning. Although administrators at every level have attempted to plan and organize their respective activities, the rapidly changing situation has allowed them to plan only at the most elementary levels. There is a great need in the management information systems area for more organization and coordination. The current University of Alaska system organization has a highly centralized framework without the personnel, time or dollars allocated to perform the function adequately. Additionally, and of more primary importance, the idea of strong, central administration with the University of Alaska's diverse postsecondary educational network can be seriously questioned as will be discussed later in this document. Many of the system's components have conducted planning for their own units that is far more complete and sophisticated than the system's attempts. University of Alaska is suffering from what many MIS experts call "fragmentation." This refers to the fact that much of the information generated and planning instituted is done in semi-isolation. The need then is to focus on key points in the administrative structure where expansion of the planning, management and evaluation capability will serve to streamline and simplify University coordination.

A second area of Alaskan postsecondary education involves vocational-technical education as administered by state and local agencies. There has been some long-range planning done in this area and a five-year plan for vocational education in Alaska is completed and in its final "brush-up" stages. Wide participation from the postsecondary education community was accomplished in the writing of this plan. It is a commendable attempt at state-wide planning. However, the plan, written to conform with Federal guidelines on obtaining funds, deals primarily with procedures and not issues in vocational education. It does not address, in substance, whether the current state of vocational education in Alaska is poor, moderate, good, or excellent, or the criteria by which those kinds of determinations could be made. It does not address the relationship or coordination between Commmunity Colleges, Community Schools, Continuing Education units, Skill Centers, etc. with Vocational Education, Lifelong Education, Adult Basic Education, Career Education and other areas where substantial confusion exists as to definition, function and duplication of effort.

The area of proprietary institutions in postsecondary education in Alaska is a third emerging and quickly growing sector. Statewide coordination in this area, with few exceptions, is literally a vast wasteland. The Commission on Postsecondary Education has taken steps to insure that quality instruction is offered and that proprietary institutions do not misrepresent themselves to consumers. However, strong steps need to be taken so that these types of institutions are encouraged to organize themselves and provide mechanisms of coordination and evaluation. A recent proposal to include a representative of the proprietary area on the Commission for Postsecondary Education seems a step in the right direction.

Private, non-profit institutions are a fourth important area of postsecondary education. Since there are only three major institutions of this type, coordination among them is usually active and relatively easy to accomplish. However, their coordination with public higher education is somewhat lacking. This area needs to be strengthened and with the addition of three new extremely involved presidents in this area the future of private higher education in Alaska looks brighter than it has for many years.

Much of the lack of planning and coordination in postsecondary education in Alaska has been due to a lack of information to carry on the function. Data collection and related procedures are slowly and painfully being developed. The lack of data is still at a highly unacceptable level, but the status of analysis to provide management information is practically nonexistent and is a hindrance of great proportions to managers and policy makers at every level. Basically, this lack of data and information calls for remedies in three areas: 1) specifying data requirements and defining data elements, 2) aggregation and analysis of data for management use, and 3) coordination of data collection procedures and training of data collection personnel.

Another area of information that is lacking in almost all areas of postsecondary education is evaluative information. Much more work needs to be done in both continuing and follow-up evaluation with an eye towards discriminating the good from the bad. An example of a simple kind of evaluation, but one which is conspicuously lacking in most of Alaska's postsecondary programs is: If a program is initiated in response to needs, such as a greater high school participation in Alaska's postsecondary education, more Native Alaskan graduates, encouraging more resident students to remain in the State after college graduation, or meeting some specified needs of rural Alaskan villagers, then the success of the program should be judged in large part by whether or not it resulted in more students in Alaskan high schools going to Alaskan colleges, in producing more Native Alaskan graduates, in causing more resident students to remain in the State after college graduation or in actually meeting the specified needs of rural Alaskan villagers. If the program does not have an impact on the needs it was intended to meet, then the program should not be continued and reasons why it did not work should be salvaged as much as possible so that something new can be tried.

As will be discussed in later sections of this document, much of the information that is lacking about Alaska postsecondary education needs to be related to, and a partial justification for, the public funds appropriated for its use.

Role and Scope of the Document

The present document is intended to provide a starting place for compiling a comprehensive statewide plan for postsecondary education in

Alaska. It recognizes that masterplanning involves the identification of key problems, accumulation of accurate data about those problems, the analysis of their interrelationships, the extrapolation of future alternatives that might emerge out of present conditions, the assessment of the consequences of introducing new variables, the choice of the most desirable modified alternatives and a built-in feedback system for periodically reevaluating the goals selected and the means used to achieve them. The final master plan document should be the cumulation and integration of the plans produced from a series of special planning efforts in specific areas,

Nevertheless, it is deemed valuable and necessary to provide identification of the areas to be dealt with, the expertise that has been brought to bear on similar problems, the work that has already been done in each area and the probable area or areas which suggest success. Each of the major areas in the master plan will be dealt with in this way with recommendations or alternative courses of action suggested where appropriate. A section of the document will be devoted to a recommended general procedure to be taken in compiling the master plan in terms of timelines, participants and methods of presentation. The intended use of the document is as a departure point for discussion, analysis and modification by those segments of postsecondary education who will have to live by its tenets; it is their plan in the end and only theirs.

CHAPTER 2

Planning, Coordination and Evaluation

Probably no one in postsecondary education or any other enterprise would deny that planning, coordination and evaluation are important functions. Obviously, it is important in any organization to look ahead at where it is going, where it should be going and how it probably ought to get there (planning), that the subunits of the organization understand and communicate with each other about attaining their overall goals (coordination) and that the methods being used to reach those goals are effective (evaluation) - a simple description of an extremely complicated process in large organizations. As most educators are well aware as organizations become large two major things happen:

1. The scope of the undertakings and associated information within the organization becomes so diversified and widespread that no one person or even group of persons can be intimately aware of all aspects.
2. Due mainly to this first occurence, the subunits in the organization tend to become semi-autonomous with support and direction of their own.

The results of these two forces tends to make planning, coordination and evaluation of the organization extremely difficult, but not impossible. One of the alternatives is to separate the many components of the organization into functional categories. For instance, in postsecondary education, one might organize all components that deal with financial affairs; all those that deal primarily with providing instruction; those that deal in support areas of personnel, student affairs, and auxilliary services; those that deal primarily with the physical plant of the organization; and coordinate their planning and evaluation activities before attempting to mesh them with each other. Some system of internal coordination of the participants and functions of an organization needs to operate effectively for organizational direction to occur.

During recent years several conditions or situations have evolved in postsecondary education that have affected planning efforts and have made planning more difficult. There has been an increasing loss of leadership in postsecondary education. The initiative for action seems to have passed to those outside postsecondary education. Because of budget restraints and lack of initiative in educational leadership, others have taken the lead. Demands for accountability and specific measurable results and indicators of the success or worth of postsecondary education have met with an organization ill-prepared to provide such information. The change from higher education to postsecondary education has included new sectors of education not previously planned for. Finally, the move to providing all things to all people has changed the emphasis from specific institutional roles and missions to providing education to anyone who can afford to come or can obtain a loan. It's somewhat a feeling of: "Let's get all the students we can get our hands on, then we can match our goals, objectives and direction to whatever these students say they want." It is very fashionable in postsecondary education today to "meet the needs of the students." Sounds good, but how do you set some limits on that? The needs of students are as diverse as the number of individuals attending at any one time. When is there enough need to change plans and commit resources? The point here is not to answer these specific questions but to realize that all the needs cannot be met and self direction by the system, to some extent, will at least define where everybody is headed. When one attempts to take an enterprise that operates by reaction rather than plan and attempts to make it accountable, confusion will abound. There is no framework around which it can be accountable.

The planning that must be done must emanate mainly from the local level with only a guiding, statewide framework. This doesn't mean that institutional planning should be done in isolation. But it should be done largely by the institutions themselves instead of being done by others who will do it on their own terms.

Data Collection and Management

Many times a system or systems of institutions do not seek or have access to information to do their own system planning. Instead of taking the initiative to define their own data needs and to control the collection of information they remain passive and let others do it for them.

There is great competition for information within a state. Many different interests are satisfied by gathering, analyzing and disseminating information on postsecondary education. Sometimes the reasons behind this demand for information are only partly for better knowledge, understanding and appreciation of the problems and needs of postsecondary education. They also involve motivations to manage and control postsecondary education. As most administrators are well aware, not only is information power, but those who control information have the power to control. In providing definition and control of the data needed for management, educational leaders should be careful about confusing data with information. Alaska is only now at a beginning stage of gathering data about its postsecondary educational system. Even so, great volumes of educational data are available. Yet almost everyone senses a lack of information. Jedamus (1974) while working on a study of faculty workloads observed: "At some institutions, information about teaching loads years ago is available in simple, useful and coherent form, but information for current years has to be gleaned slowly and expensively from masses of data on computer tapes or printouts" (page 33). Systems of data collection should be built with an eye toward providing same sorts of information that are determined before the data system is assembled. Statistical data are numbers; statistical information consists of data that have been condensed, organized and analyzed to promote insight into the operations of an organization.

This does not mean that data are not valuable or needed. In fact, data collection is the first step in gathering and providing information. Creating or updating data systems almost always starts with operating data.

Computerized Data and Information Systems

The recent development of the University of Alaska Computer Network (UACN) has been an attempt to provide a means to provide data and through systems developed by Systems Communications Technology (SCT) in the student enrollment area (Integrated Student Information System - ISIS) and the financial area (Integrated Budget Information System - IBIS) have attempted to provide information as well. The effort has bogged down somewhat mainly due to some considerations of design that either were not dealt with or were dealt with by the wrong people at the outset. Some of the aspects of a management information system that need to be resolved at the outset include:

1. Concept - should the system be considered as one integrated whole or as a series of partitioned subsystems connected by actual or potential linkages? This was a popular concept in the '60's and somewhat in the '70's but some serious practical difficulties became apparent at places where the total integrated system was tried. Basically, the whole system concept requires that everything be understood before anything can be accomplished. It requires one very large-scale implementation before any part of the system will work for anybody. It is vulnerable to blockage by a single component. Additionally, its development takes a very long time and during this time there is no apparent payoff to the organization that is pouring funds into it.

   Therefore, a stepwise or partioned system seems to have more benefits. Some cautions to follow here, however, is that great care must be taken in providing linkups between subsystems.

2. Centralization - the extent to which the system will be centralize is another aspect to be considered. The existing degree of decentralization in the structure and decision-making processes of the system or systems should be the starting point. Harcleroad (1971) cautions on this point:

"Fear of loss of autonomy, whether intended or not, can cause strong local resistance to systems development" (page 35). Each operating unit or subsystem also needs to set priorities for local operating service. Also, the key people in each institution or subsystem need to have a strong voice in organizing their systems. A particular problem at this time with development of the ISIS system has to do with centralized versus decentralized control of data definitions and data integrity. Data definition needs to be an agreed upon process involving all units of data collection, while control of data integrity must remain at the local level. Experience in many states, over and over, has shown that a centralized staff of almost any reasonable size cannot centrally control the integrity of data.

3. Timing and Scope - this aspect of development addresses whether the effort should be an all-or-none undertaking, or should it be done in incremental stages. The question is partly academic in Alaska since the size and time available for the central staff to try this all at once are prohibitive. However, some serious questions still need to be resolved regarding how this incremental procedure will be implemented, even at this late date.

4. Response Capability - a fourth aspect to be dealt with is whether the system is geared to standardized data handling and response or does it need to accommodate a variety of responses very flexibly. Should it be automated or can it be

kept as a manual system? If it is automated is a continuous interactive response capability required or is a periodic input and delayed response (batch) system sufficient? Also, whether the system is basically history oriented (summarizing or analyzing data) or is it predictive (cost enrollment projections)?

Some of the reports that would probably be needed from operational data would include: quarterly financial summaries; annual reports of the sources and uses of funds;the annual budget document divided into operating and capital budget sections with a comparison against the previous year;a report of course enrollments and departmental instructional loads; reports of persisting attrition and degrees granted by major and level of degree; and reports of the assets and liabilities of the institutions including investments, the returns on them and the debt structure.

In terms of the information that the system provides Harcleroad (1974) includes:

> "1) The information must make it possible to assess what happens after the institution or statewide agency has been committed to a particular course of action. It must provide a way to answer the question: 'Did the option work?' Feedback loops must be planned with the follow-up analysis in mind in order to answer this question.
>
> 2) A comprehensive information system itself must justify its costs in a clearly measurable way. In addition, regular follow-up analysis of an information system needs to be made to see whether it should be continued. Computer hardware and the games and simulations they make possible can become toys for their operators,

> with the constant demand for bigger computers, more programmers and more facilities. Simulation models do not predict anything with more reliability than a statistician doing it by hand; it is merely faster" (pages 36-37).

Postsecondary educators should push forward as quickly as possible with the development of statewide information systems for the purposes of evaluation and accountability more than for management. The demand for accountability is ever increasing and postsecondary education must respond.

Accountability

Everywhere education is besieged by the demands for accountability. In part, this reflects a loss of confidence in educational institutions and in part some frustration over rapidly rising costs. The public is demanding that institutions identify and measure the outcomes or products of postsecondary education and to compare the results with the costs. As Bowen (1974) cautions:

> "Yet, without some reasonably reliable methods of defining and assessing outcomes, all questions relating to the efficiency of higher education, all judgements about its progress, and all efforts toward rational allocation of resources among and within institutions become meaningless" (page 123).

One way to look at measuring the productivity of a process like higher education is to measure the value of outcomes to the value of inputs. Although measuring productivity in physical terms can be useful in reorganization, measuring productivity as a ratio of outputs to inputs is more useful in terms of choosing among alternative paths. As specified by Carlson (1975) higher education inputs are usually considered in three categories: 1) operating factors (personnel, equipment, supplies and services); 2) physical plant capital (buildings and grounds); and 3) student time and effort. Operating factors are valued at the purchase cost. Physical plant capital is valued in terms of a derived share of long-term expenditures made to acquire and maintain buildings and grounds. Student time and effort costs are more difficult to measure but usually are valued at the opportunity costs of foregone earnings. Actual earnings while attending college are subtracted from what could be earned by other persons with college student ability and previous education (quite difficult to control, however). Carlson (1975) has estimated that the value of student time and effort computed this way amounts to about 55 percent of the total cost of inputs for a college education.

Comparing input costs in this way with the economic value of a college degree is one way in which some measure of benefit may be determined. It at least approaches a way of providing the public with a means for evaluating the costs versus benefits of a college education.

External Review

It's probably valuable periodically to have postsecondary education reviewed from without. This occurs normally through accreditation and legislative budget review, but probably ought to be accomplished now and then by a broader, more representative body with a more impartial evaluation set. This may only occur every five or even ten years and provides a fresh look on the whole postsecondary education enterprise. This type of evaluation group should be broadly representative and have among its numbers outside consultants and people who do not normally involve themselves with the evaluation of education. The group should be selected in a way that would tend to insure executive and legislative confidence. The group would concern itself only with the structures and planning processes of postsecondary education and not with the content of programs or plans.

Role of the Alaska Commission on Postsecondary Education

The Postsecondary Education Commission (PSEC) holds a unique place in Alaska postsecondary educational evaluation and planning as it does in many states. It does and should represent a buffer between the executive and legislative branches of government and the postsecondary educational community. It is an important role and it would be very difficult for any other agency in the State to assume its function. One of the problems in evaluating institutions of postsecondary education has been to obtain the judgement of professionally qualified persons who are at the same time removed from the actual operation or control of the enterprise. Obviously, the president of an institution and his staff are qualified and responsible for the internal operations of that institution. But when evaluation of more than his institution is concerned, the president and his staff cannot be regarded as disinterested parties. Governing boards are often said not to be qualified because they are closely identified with the institutions, are not professional educators and traditionaly leave educational matters to the faculty. Peer evaluation such as accrediting involves participants who are not wholly disinterested and tends to become involved in "senatorial courtesy" and mutual back-scratching. Government officials are not usually acceptable to the educational community because they tend to be bureaucratic and seem to threaten academic freedom. Lay committees representing various constituencies are not acceptable to many because they are not professionally qualified. Independent consultants are used quite a lot but criticism here stems from the fact that some consultants, in making recommendations, tend to support the ideas and pre-conceived notions of those who hire them. Therefore, the coordinating commission, although not free from all these criticisms, represents a unique compromise that allows them to operate both in and outside of education, while maintaining credibility in both. External review of all kinds should be coordinated by this body.

It is apparent then that the functions of planning, coordinating and evaluation are not only necessary to maintain order and direction for postsecondary education in Alaska, but necessary for its very survival. The Postsecondary Education Commission can provide guidance in accomplishing these functions effectively, but the postsecondary education community itself must provide mechanisms and structures to aid in the processes. Planning, such as it is in Alaska postsecondary education, cannot continue to be done in semi-isolation by various sub-units, but must come together to coordinate and provide direction for postsecondary education as a whole.

Recommendations

1. That statewide (public, private, proprietary) coordinating committees be established to deal with the various functional categories of postsecondary education such as financial affairs, facilities planning, development and usage, student affairs, and program planning.
2. That once a state plan framework and content have been established, that each institution or agency in postsecondary education provide a local operational plan to implement the goals and objectives of

the state plan. These plans should cover a period not to exceed three years.

3. That the ISIS (Integrated Student Information System) and IBIS (Integrated Budget Information System) being developed by SCT be reevaluated in terms of the information that it must provide as opposed to the data that must be collected to complete it.
4. That the ISIS and IBIS systems be reevaluated in terms of their centralization - decentralization, implementation schedule and response capability aspects.
5. That the ISIS and IBIS systems be evaluated in terms of their expected benefits as opposed to their costs and alternatives to accomplish the same ends be considered.
6. That the Office of Institutional Planning of the University of Alaska system begin developing some measurable output indicators to indicate the effectiveness of their various undertakings.
7. That a comprehensive external review of the structures and planning processes of postsecondary education in Alaska be conducted once every ten years by a broadly representative group of people whose job is not normally the evaluation of education. This group would have advisory members from the postsecondary area for expert advice and guidance.
8. That the Alaska Commission on Postsecondary Education take the lead and play the major role in bringing together appropriate representatives of postsecondary education on a state level to conduct planning, coordination and evaluation. In addition, the Postsecondary Education Commission should provide suggested criteria and frameworks by which these functions can be accomplished.

CHAPTER 3

Academic Program Planning and Review

Probably no other role of state coordinating or governing bodies is so sensitive as that of reviewing the programs and procedures of educational institutions. This sensitivity evolves mainly from a lack of definition and assignment of roles in the area of program content as opposed to program performance. While the central state coordinating agency should ultimately be responsible for the coordination of programs, this in no way should relieve the institution from responsible participation in curriculum and program development. It should be acknowledged that the academic departments possess the competence to decide the proper structure and content of a program or curriculum while the governing board and administrative officers can best decide how those programs relate to a particular institution's role. However, it remains for the central coordinating agency to apply its judgement as to how a continuing or proposed program relates to the programs of other institutions in the state. Other considerations should include assessing the prospects of growth, the impact of economic and student demand factors on other programs in the state, the effectiveness of the same or similar programs in other institutions both in and out of state and any alternative means to meet the educational needs that have been established.

The System Concept

From a program effectiveness and availability standpoint, the current system concept employed by the University of Alaska seems a good one. Although many problems from a political, structural and financial outlook remain to be resolved, the program aspect of the system organization has proved to be valuable, as it has in other states. It provides students from all parts of Alaska the opportunity to participate and progress in a comprehensive educational experience that would probably not be available to them in an independently organized structure without great expense and travel on the part of the student. It also allows ease of faculty interchange and establishment of common standards of instruction. Criticism of the system has been forthcoming from many quarters recently, but the academic value of the system concept remains a strong and viable idea.

Program Delivery

Many times changing instructional or program delivery methods is done more for the sake of change than demonstrated educational benefit. Of course, it is important that a constant search for better methods of instruction and delivery be sought, but whether or not they are instituted should be based on some demonstrated reason why the method might be more beneficial. Here is where research and instruction should work together with pilot studies conducted to test the premises before large-scale implementation. Many educators have in large part ignored the rather significant body of research dealing with the relative value of differing instructional methods. A few relevant studies will be described here as an example.

Milton's book Alternatives to the Traditional (1973) summarizes impressive evidence that faith in the educational value of what goes on today in most college courses is largely unwarranted. Kestin (1963) found that engineering students whose homework assignments were never turned in to the professor did as well on the final exams as did those whose papers were written, corrected and returned. Milton (1963) showed that freshman English students who did no writing of themes between a pretest and a final test improved in their final exams as much as students who turned in a paper once a week, received corrections and rewrote their papers. Dubin and Taveggia (1968), with pooled data from 91 separate studies relating learning to differential teaching methods in over a dozen subject areas showed no consistent differences in learning achievement. Macomber (1957) in a comparative study involving 4,500 students in 23 courses, some using primarily lectures, others discussion and others television, showed no differences in student mastery and content or in critical thinking related to the teaching method used. Therefore, new program proposals based primarily on instructional delivery changes should be carefully evaluated before implementation and funding.

Program Review

As mentioned, program review is one of the most sensitive aspects of statewide coordination as it attempts to discover what institutions of postsecondary education are actually doing in terms of teaching, research and public service. In the present climate of accountability in Alaska increasing emphasis will undoubtedly be placed on the methods and procedures used to evaluate the performance of present programs before embarking on new ones. For making these kinds of decisions, prior planning done regarding roles or missions is really only of minimal help. Therefore, whether or not any long-range planning has been done, a workable program review process is essential.

Several questions regarding the review procedure need to be answered. Some of the most important ones include: Which programs are to be reviewed? Which criteria are to be applied in judging? What machinery is to be used in the evaluations?

Program review by statewide coordinating agencies differs from many other evaluation efforts in some important ways: in its purposes, in the kind of measures used and in the location of primary responsiblity. Dressel (1976) differentiates among four types of evaluation according to their aims:

> "1) Planning or Developmental Evaluation - determines needs or deficiencies and devises goals or objectives to meet those needs. It facillitates decisions required at the early stages of developing a new program or of revising an existing one.
>
> 2) Input Evaluation - aids in making decisions about how to use resources to obtain program goals. It identifies and appraises the potential of individuals and agencies; compares and analyzes strategies for achieving goals; formulates design for implementation; estimates immediate staff requirements, other resource requirements and costs possible difficulties; and projects requirements into the years ahead as the program becomes fully operative.
>
> 3) Process Evaluation - provides continuous periodic feedback so that those responsible for program planning and operation can review and possibly alter earlier decisions.
>
> 4) Output Evaluation - assesses the attainment, at the end of a project or at appropriate stages within it, of those goals which are self-contained and of those which are preliminary to entering another stage" (pages 15-16).

In identifying the focus of each type of evaluation, the first three seem most appropriately conducted at the institutional level where program development and expansion is engaged in. Output evaluation, since it may involve suggestions for continuing, modifying, or terminating programs, comes the closest of the four types to the kind that should be conducted by coordinating agencies as well as by legislative and executive branches. In general, coordinating agencies and executive and legislative auditing bodies evaluate academic programs for similar purposes - the effective use of resources. However, coordinating agency reviews sometimes serve other functions such as evaluating program quality or determining whether institutions are adequately protecting their consumers or supporting state accreditation reviews.

The status of this kind of review at a statewide level in Alaska is that it is nonexistent. The University of Alaska has made some attempts at review, but basically remains as it did in 1975 when the Academic Development Plan Committee stated: "Thus, to the extent that the decision-making information (regarding academic programs) has thus far not been well-defined or understood, the decision-making process must certainly appear to observers to be arbitrary" (page 358).

Review Indicators

The basis for phasing out or reorganizing existing programs should differ from the ones for evaluating new programs. In reviewing existing programs some or all of the following factors should be considered: the number of graduates in the program for each of the last five years; the number of students enrolled in the program (entry and dropout rates); the size of classes and the cost of courses identified as integral elements in the program; cost per program graduate; faculty workload; program quality as reflected by its regional or national reputation, faculty qualifications and level of position achieved by graduates of the program; total production of a program's graduates from all institutions of the state, region and/or nation; the economies and/or improvements in quality to be achieved by consolidation and/or elimination of the program; general student interest; and demand trends for the program and the appropriateness of the program to a changed institutional role or mission. Although some of these indicators might be applied to new programs as well, some specific criteria to evaluate new program proposals should include: projected student demand for the program; current and projected need for graduates of the program as stated by employers in the region or state; production of graduates from similar programs in the state; proposed curriculum; proposed level of program and student level; proposed size of classes; cost of resources required; accreditation plans with timetable; and funds available. Appendix I describes a comprehensive list of review indicators for both existing and new programs.

The questions still remains, however, as to which programs to review. An attempt to review all programs in the state would be a virtually impossible and probably unnecessary task. Almost all states with program review mechanisms at the state level employ some sort of screening criteria to select a smaller number of programs for more extensive evaluation. There is a clear need to examine at least those programs that have been shown to have only limited demand and productivity as well as those that seem to exhibit relative state costs that appear higher than normal.

A particular problem frequently arises when the central coordinating agency does not have individual course approval. In this situation institutions sometimes take advantage of the absence of required central approval of individual course offerings to build up, course by course, the substance of a new program or curriculum and then ask for agency appro[illegible] the already accomplished fact. On the other hand individual course approval places an administrative load on the central agency that may not be possible to handle and raises serious questions about the institution's right to determine course content and maintain academic freedom. It is a dillemma which must be resolved with the participation of all involved.

The types of indicators used to identify programs for more intensive review varies considerably from state to state but usually includes the areas of cost, productivity, need, duplication and quality.

An area which is frequently overlooked in program review and which is particularly important in Alaska is programs not funded by the state. There are those who argue that there should be no central agency review of teaching or research programs not funded by the state, e.g. endowments, gifts and Federal grants. However, this view raises some important questions that need to be dealt with.

In terms of financing, should an institution using outside funds for a program have to seek clearance from the central coordinating agency? It should be kept in mind that these programs will undoubtedly involve some indirect overhead costs and many times the state will ultimately be expected to take over a program when the Federal funds dry up. Proponents of strong statewide planning insist that all programs, both new and continuing, funded with outside money should be reviewed by the central coordinating agency or there can be no assurance that state planning guidelines in terms of programs will really be adhered to.

Glenny (1971) suggests four areas in which programs not funded by the state should be reviewed:

1) The commission should be informed of all new programs prior to their beginning or at the proposal stage, whether funded with state money or not. With participation of the institutions a fiscal figure and time period should be established so that any outside funded projects that exceed this figure must undergo a normal program review.

2) To give the institutions incentive to seek more outside funds, at least half of overhead income should be left with the institution for financing research in areas of less support; for experiments and enrichment of academic programs; and for additional student financial aid.

3) The coordinating board should take special care to see that 'free money' is not plowed back into existing unit costs to inflate them for purposes of establishing a higher cost base for future budgeting.

4) If the Federal government should award block grants to institutions on some formula basis for general operations, the funds above a 'maintenance of effort' level should be considered as regular operating and/or capital income" (page 53).

Therefore, it is not only desirable but necessary that strong central program review be accomplished to determine need, performance and areas for readjustment.

Manpower Requirements and Projections

In determining need for programs and in guiding students into career areas, much use has been made recently of manpower needs projected into the future. Institutional planning in many states has depended heavily on projections of student demand. There is considerable disagreement, however, on how much this demand is affected by economic market conditions. Regardless of one's position on the issue of how much student choice is affected by market conditions it seems apparent that a better understanding is needed of how and why students make choices concerning their education. Manpower researchers such as Breneman, Carter, Freeman, Kelley and the National Science Foundation on Manpower Projections have emphasized the need for a better understanding of student collective choice behavior. Norris (1977) cautions:

> "We need to know just how responsive students are to economic, social, cultural and other factors in making their educational decisions. Given the changing economic rewards of education, we cannot rely on studies performed a decade ago; we need to understand student behavior under today's market conditions and those that we project will exist over the next few decades" (page 40).

Freeman and Breneman (1976) point out three appropriate uses for manpower information by institutions of higher education:

> "1) Manpower forecasts are a useful tool for evaluating government policies. They can suggest where government action is needed and 'policy conditional forecasts' can be used to demonstrate the potential impacts of government policy.
>
> 2) A second attractive use is as an early warning system for market adjustment processes. This is especially important in such areas as the market for Ph.D.'s where 'cobweb effects' are present.
>
> 3) The third use of manpower studies is as an informational or diagnostic device to direct attention to the market problems that are beyond the purview of individual decision-makers. Demographic changes, the impact of changing student choice in response to market factors and the changing reward climate in academia are examples of where manpower studies can provide invaluable information to individual decision-makers" (page 42).

Manpower studies with regard to student-choice behavior can help educators at all levels to balance their planning between reacting strictly to student demand or reacting strictly to projected requirements for specific occupations. Closer connections between education and the world of work could help in considering the impact of changing economic, social and cultural conditions. It seems important to overcome the idea that a college degree is a guarantee of a better job; it is apparent that students are becoming quickly disenchanted with that notion. More work on preparing graduate students for non-academic careers should be done.

As institutions of higher education are now finding out, if they do not take an active part in addressing these problems, someone outside the institution will do if for them without their input.

Maintenance of Quality

Insuring that educational institutions are offering instruction that meets minimum standards of quality has been a particular sore point with the academic community when these standards are either set or evaluated by public bodies outside of the educational family. Institutions maintain that they are already operating within fiscal rules and regulations of the state, are meeting standards of accrediting agencies and are constantly being evaluated by their students, who will go elsewhere if standards of quality are not met. From the state position several problems are seen with this philosophy. Voluntary accreditation by peers with a community of interest will probably always be viewed with some skepticism in terms of serving as a means of public accountability. The reports of these agencies are not made public and much of the review is based as much on opinion as hard data. Very few if any comprehensive reviews of instructional programs or resource allocation methods have been instituted as a result of student dissatisfaction. Additionally, the reluctance of institutions to submit to public scrutiny in many areas leads public officials to believe that they have something to hide.

Another counter by institutions is that their governing boards already meet all the needs of public accountability. However, as Folger (1977) points out: " ... in contrast to state regulatory coordinating agencies, most statewide governing boards will be unlikely to meet the performance evaluation expectations of state officials. Governing boards are likely to be viewed as primary advocates of the institutions in their system, rather than as impartial evaluators, and their actions in program review and resource allocation will be subject to questions as those of the institutions themselves" (page 92).

However, institutional evaluation and board initiated evaluation will always be of great use in the management of institutions or systems so that the standards of outside accountability will be met without problem. A balance must be struck between providing all information for evaluation at the state level and leaving the institutions or system of institutions to determine their own performance.

Consumer Protection and Disclosure Requirements

In recent years the growing interest in non-traditional types of education and institutions has resulted in a great proliferation of institutions with questionable standards of quality and forthrightness. This has brought up the questions of who is going to regulate these types of institutions and how. Who is going to regulate these institutions naturally falls to the state and its chartering and approval process. How the institutions are to be regulated is a much more difficult question to answer.

The Education Commission of the States (ECS) through a special task force chaired by Representative Tom Jensen from Tennessee undertook the formulation of model state legislation (now completed) that could be enacted by each of the several states to protect the public from illegitimate institutions. The task force stated that:

> "Prior to 1972, the United States Office of Education (OE) reported that 2,700 postsecondary institutions were accredited by agencies recognized for this purpose by OE. In addition, there were about 300 unaccredited colleges and universities in the United States. Of the 300, it was estimated that about 110 could be considered 'diploma mills'; essentially providing no training or education, but selling degrees for a price. The other 190 may not have satisfied the standards for accreditation but were making honest efforts to meet the required standards" (page 54).

The 1972 higher education ammendments included provisions that made the criteria for qualifying for Federal funds much less restrictive and in part encouraged the establishment or expansion of institutions with low or no standards of quality. Therefore, rather than 3,000 institutions in 1972 there were more like 14,000 according to OE estimates.

The current status of non-traditional institutions in Alaska follows somewhat the same pattern. There are approximately 17 academic degree-granting institutions while the number of proprietary non-degree granting postsecondary educational institutions now stands somewhere between 45 and 50.

ECS (1977) has identified some potentially abusive policies of these type of institutions that should be considered for assessment. The list includes:

1) Financial instability
2) Misleading advertising and recruiting practices

3) Inadequate disclosure of necessary information to students and prospective students
4) Inferior instructional programs and facilities
5) Inferior instructional faculty and staff
6) Inadequate record-keeping policies and practices
7) Inadequate follow-up of former students and inferior job placement services, if offered
8) Inadequate or nonexistent tuition and fee refund policies
9) Misleading representation of accreditation or "approved status" (page 2).

Appendix II specifies some of ECS's follow up recommendations regarding state licensure and consumer protection in this area.

Although it is true that the latest population projections by both Federal and local agencies show a rapid growth in the next decade for Alaska, the unregulated proliferation of educational institutions, programs and courses of instruction can no longer continue. Possibly now is the time to call a halt to unrestricted growth in the academic program area and to make a commitment to assess what we have and how to improve its quality before moving on.

Recommendations

1. In terms of academic planning, it is suggested that the University of Alaska's Academic Development Plan be used as a point of departure. Although recent responses from the University have indicated that the application of the plan has been extremely limited since 1975 and evaluation of its effectiveness has not been undertaken, it nevertheless represents the most comprehensive attempt to date at program planning.
2. In terms of accountability and program review it is recommended

that the Commission staff in cooperation with the University system and appropriate personnel from private institutions work to establish acceptable criteria for program review at the state level. Appendix I of this document could be used as a point of departure for discussion.

3. In establishing the acceptability of new program proposals at the state level at least the following criteria should be used: a) State Needs - whether the program meets state needs effectively. Could the need be met more effectively by establishing a new program at a different institution or expanding an existing program? Has student demand met manpower needs over an extended time? Are existing programs meeting identified state needs both internally and as they relate to other states?; b) State Ability to Finance - regardless of how efficient program planning and review may be, some projected figures on state ability to finance must be considered. This leads directly to the establishment of some relative priority assignments to programs so that new program approvals or existing program cutbacks can be done on some rational basis; c) Compatibility With Mission Assignment - does the program fall within the agreed upon areas included in the institutional mission assignment; d) Institutional Readiness - includes the ability of the institution to maintain or create a program in terms of the adequacy of its faculty, facilities, funds, library holdings and other support areas.

4. A particular effort needs to be made to coordinate planning and review of programs from different sectors of postsecondary education.

5. The standards of program quality and indicators of necessity for funds used by budgetary units in the State should be closely coordinated and discussed with Commission staff members in regard to common definitions and agreement on indicators.
6. Programs of instruction not funded wholly or at all by the State as well as research programs should be subject to full review procedures. This should be done with an eye towards taking over valuable programs financially when the Federal money may no longer be available.
7. It is recommended that basing the need for new programs on manpower projections only should be tempered with trends on student demand.
8. It is recommended that a written set of criteria and procedures be developed by the Postsecondary Education Commission for evaluating institutions' right to operate in the State. Each institution, especially proprietary ones, should be well aware, in writing, of the standards and criteria by which they will be evaluated, the materials they may need to provide the evaluation team, who will conduct the evaluation and when it will be conducted.

CHAPTER 4

Student Entrance and Passage Through The Alaska System of Postsecondary Education

Providing students with well-defined coordinated policies and procedures for taking advantage of the complete postsecondary educational opportunities in the State is a laudable goal, but one which many states have found difficult to achieve. This results mainly from lack of coordination between campuses and sectors of postsecondary education as well as some vested interests in who gets the students. Healthy competition among sectors of postsecondary education is good as long as the student is provided with a good idea of what is available to him/her, what he/she can expect for his/her time and money and how to most quickly and effectively accomplish his/her educational goals.

As a young and growing state, Alaska, with its highly technical work force located in a basically rural oriented economy faces many diverse and sometimes contrasting postsecondary educational needs. In this atmosphere, a list of educational needs is quite long, while a list of common educational needs is considerably shorter. Nevertheless, some good attempts have been made and are being made to meet these diverse needs. However, more emphasis needs to be placed on providing guides and instituting policies that make it easier for students to pass through or continually participate in the Alaska system of postsecondary education.

Equal and Open Opportunity

One of the continuing problems in Alaskan postsecondary education is providing equal and open opportunity to students from all areas of the state. It becomes very difficult or sometimes impossible to provide the same level of student services to students in bush areas as those in urban areas. While this may always remain true an attempt should be made to provide services to all students. This intent is evidenced in a recommendation by the Academic Development Plan committee (1975) when they stated:

> "Staff or faculty resources should be made available, so that every student, whether enrolled at the smallest extension center or the largest residential campus, may have access to some measure of student services, including advising and counseling at the very least" (page 381).

Whether or not this goal is being accomplished to a significant degree has not been comprehensively evaluated and this evaluation sorely needs to be done before more time and money is spent on new efforts. In addition, students from private and proprietary education need to have a clear definition of how their educational programs relate or don't relate to those of the University of Alaska.

Some of the elements of the University system itself do not meet the student needs in particular areas. Some of the community colleges have core programs in pre-professional training that could be strengthened. As stated in the University's Academic Development Plan (1975):

> "However, most of the smaller community colleges are not yet sufficiently developed to offer an adequate second year liberal arts core program. The availability of a liberal arts core adequate to provide the first two years of all but a few of the professional types of degrees is a worthwhile, achieveable goal of the community colleges and immediate attention to this development is a strong recommendation, even at slightly increased costs" (page 30).

In any case, providing students with educational opportunities that meet their needs throughout the state should be a major emphasis.

Student Demand and Participation

The rate at which Alaskan students leave the state to participate in postsecondary education elsewhere has been and is a particular concern. Although one must be careful to define the extent to which this is happening since Alaska's relative position to other states in this area has changed somewhat in recent years. For instance, the Academic Development Plan (1975) quotes data which reveals that: "Urban Alaskan youth leave the state to pursue higher education elsewhere in greater percentages than do residents of any other state" (page 58). However, the HEGIS Interstate Migration of Students Report (1975) shows that the percentage of state residents migrating to other states for purposes of gaining an education ranks Alaska fourth with the states of New Jersey, Connecticut and New Hampshire all having higher percentages of resident students going to other states for obtaining postsecondary education. Of course, one of the reasons for the discrepancy here is that the Academic Development Plan data was quoted from a 1963 study.

It is still true, however, that a relatively high percentage of Alaskan students go ouside the state to pursue postsecondary ecucation. Much of this has been blamed on the fact that adequate educational opportunities are not available in Alaska and to some extent this is true. Some student demand data indicate that the match between what students out of high school say they want and what is actually provided to them may not coincide in many cases. The temptation here is to modify our postsecondary offerings and structures to meet these stated demands. Of course, it is valuable and necessary to provide students entering postsecocndary education with what they say they want, but great caution must be exercised in conforming to demands versus actions.

One of the first assumptions in many planning endeavors in this area is that the primary reason people go to college is to get a job and in the vocational-technical area this may be true. Some evidence bearing on this relationship between experience with college and its perceived value for vocational preparation is shown in a national study by Campbell and Eckerman (1963). They found that the highly educated and the occupationally and economically advantaged are considerably less likely to place major emphasis on job training than are the the rest of the population. This suggests that as the proportion of the adult population which has attended college increases, as is happening year by year in Alaska, the popular view of the main purposes of higher education can be expected to become more varied with less exclusive emphasis on its role in vocational and career preparation.

More recent data from alumni tend to support Cambell and Eckerman's findings. In a survey of college graduates Spaeth and Greeley (1970) found that the emphasis on higher education for career placement is not that dominant a theme for 1961 graduates seven years after they are out of school. This has major implications for the values they now pass on to their college-age children. They found that 77 percent of the alumni said that in selecting a college for their oldest child it was "very desirable" that the college offered a good general education whereas only 48 percent felt that it was "very desirable" that the college give good career training.

A recent study by the Alaska Postsecondary Education Commission surveying the educational plans and career aspirations of Alaska high school seniors has indicated that they heavily emphasize business careers and interest in vocational types of education.

However, caution must be taken to match what these students say they desire and what they actually do. This calls for some study of this phenomenon before major action in postsecondary education occurs. A wide variety of studies has shown that vocational or career preparation is the main reason given by most freshman for their attending college. It is important to realize, however, that just as alumni in Spaeth and Greeley's study came to regard career education as less important, students come to regard it as less important by the time they are seniors.

Yankelovich (1974) estimated that about one-third of today's college students stress almost exclusively the career related purposes of their education and another third stress personal and social values. The rest of the students seem to be looking for some kind of ideal through a self-fulfilling career that will also provide them with the kinds of financial rewards they desire.

Although Alaskan students may differ somewhat from these findings, it is important that this be evaluated and its implications for postsecondary education be determined. Let us not run off changing our whole postsecondary educational enterprise without first determining the situation in regard to the student demand versus participation problems.

Articulation in Postsecondary Education

Although the problem of communication and coordination among sectors of postsecondary education has already been mentioned, it deserves more detailed treatment. One of the most vexing problems for students as well as administrators and faculty in postsecondary education is that of being able to transfer from one institution to another within the same state and not lose some continuity in education as well as a substantial number of academic credits. This results from both real and perceived differences from one institution to another. Real differences may exist in both the quality and purposes of similarly named programs. Perceived differences may exist in these areas as well as the feeling by many institutions that certain sectors of postsecondary education offer inferior instruction per se. The real differences can be softened somewhat by cooperation and insurance that the level of faculty and facilities is similar. The point here, however, is that students deserve a clear picture of the relation of their academic work in one area to others in the state. It is the educational community's responsibility to provide coordinated and transferable work for consumption by the student. It is the student's right to expect such service.

Beyond the mechanisms to insure such coordination and transferability is the responsibility to make this information known to all students who participate - a formidable task in itself. Some states have published documents which outline specifically which courses and programs are transferable to which institutions and which are not, thus giving the student an idea, beforehand, of the value of his work throughout the state and its applicability to similar or advanced work in other institutions. The value of this is two-fold: first, of course, it is valuable to the student and the interested public, but it is also of importance in bringing to light areas where coordination is lacking and fostering a situation where coordination can occur in mutually acceptable areas.

In a more general sense, not only is information about transferability valuable to students, but just information about programs and services available throughout the state is needed. A comprehensive gathering of all programs and services available throughout the state in public, private and proprietary sectors of postsecondary education would be a very valuable service in itself. Although some mechanisms to attempt this have been set up, their effectiveness has been somewhat lacking and new ways to accomplish this information dissemination function need to be tried. One alternative, proposed by the Alaska Postsecondary Education Commission, is included in Appendix III of this report.

State Student Financial Aid

As the costs of postsecondary education rocket skyward the financial aid programs available to students becomes more of a necessity than a nicety. Without such programs as the Alaska Student Loan Program, Western Interstate Commission for Higher Education (WICHE) Student Exchange Program and various Federal loans and grants a large percentage of Alaskan students would not be able to participate in postsecondary education.

The Alaskan policy of making large sums of money available to finance Alaskan students in gaining their education in other states with more opportunity has been questioned and discussed many times. In terms of service to students it is an outstanding success by any measure. In terms of encouraging students to leave the state permanently, the jury is still out. It is not clear whether students are encouraged to remain out of state by this program, but some evidence compiled by the Postsecondary Education Commission does indicate that the rate of leaving the state after high school is no higher for students who participate in the Alaska Student Loan Program than for students who do not participate. The issue needs more analysis and a clear commitment should be established on this evidence.

Alaska's reluctance to participate in the State Student Incentive Grant (SSIG) program remains somewhat of a mystery. It is the only state that does not participate. A clear resolving of this issue is needed. With many students being turned down due to lack of funding in the WICHE program, the increasing participation in the Alaska Student Loan Program and the skyrocketing costs of postsecondary education, there seems a clear need to aid students financially in whatever way possible.

Recent legislation at the Federal level may make it possible for more "middle income" families and thus students to qualify for financial aid under BEOG and SEOG programs. It is not clear if this would affect many Alaskan students, however, since the "middle income" category defined in the Federal legislation in large part doesn't exist in Alaska.

Continued effort and evaluation of impact needs to be done regarding student financial aid.

Recommendations

1. As recommended in the University of Alaska's Academic Development

Plan means should be provided to allow all areas of the state to maintain strong counseling services that can guide students in their academic endeavors and career choices.

2. Specific and significant evaluation measures be instituted to determine the effectiveness of present counseling and guidance services.
3. That a transferability document be compiled covering all of postsecondary education. This could probably be done in stages with the University of Alaska system being done first, then adding private higher education and applicable proprietary institution programs.
4. An evaluation of the strength of core liberal arts programs at each community college within the University of Alaska system be done.
5. That follow-up studies be done to determine the relationship between what students say they want in postsecondary education and the actual ways in which they participate.
6. That an education information network as proposed in Appendix III of this report be instituted in Alaska to inform students of the resources available to them in the state.
7. An evaluation of the impact of participation in the State Student Incentive Grant (SSIG) program should be accomplished.
8. Possible alternatives to providing aid money to students should be pursued such as providing money for educational loans through revenue bonding.

CHAPTER 5

Financial Support, Allocation and Efficiency

In light of the current fiscal accounting situation now existing at the University of Alaska and the public notoriety that it has received, probably no one is more interested in developing budgetary accountability to its fullest than the University itself. The purpose of this chapter is to review the problems and solutions both in Alaska and elsewhere and then to suggest possible methods to use or directions to proceed. The chapter will deal primarily with the University of Alaska since it represents the bulk of public funding to postsecondary education. The discussion and recommendations will not deal with the budgetary accounting system, although it needs to be dealt with, since this is an area best left to budget officers and state auditors. Rather, it will deal with the issues of level of support, allocation of funds, and methods of indicating the system's efficiency.

Allocation Methods

Specifying fair ways in which money from the state coffers can be allocated to higher education is not only a means for the public to insure educational institutions are not "padding" their requests, but a method for higher education to protect itself. With the tight money situation (even in Alaska), higher education becomes particularly susceptible to budget reductions because it is not normally funded by statutory formula, except for two-year colleges in some states. This wouldn't be particularly devastating except for the fact that many other state programs are funded by formulas established by law. Two major examples would be the elementary/secondary education Foundation Formula and the state welfare system. Also, there are other mandatory state costs which are consuming large portions of public funds like the Alaska Public Employees Retirement system. In this atmosphere of high competition higher education is the largest block of so-called "discretionary funds" (if one discounts the Alaska Permanent Fund) in the state budget. It is very tempting, therefore, to use these "discretionary funds" to adjust differences between revenue levels and budget demands. Thus, even with an increased commitment to higher education (which is somewhat dubious in Alaska for the immediate future) these funds will remain highly vulnerable to budget reductions unless some method of formula funding is developed.

On the other hand institutional personnel as well as legislative personnel should be wary of simple formulas. Experience over many years and in hosts of states has shown that there are no easy ways to improve such a complex process. There is always a temptation to assume past practices are completely innappropriate and to begin anew. Although it may not be initially apparent, existing practices usually have incorporated significant wisdom based on past experience. They may need modification and "tuning up" but should not be dismissed too lightly. Probably the best procedure is to proceed incrementally with well thought out variations that can be tested in practice without crippling the whole system if they are not effective.

With the long list of areas that require decision, the complicated interrelationships among them and the limits of time and staff available to review procedures means that some structure needs to be provided to simplify the process of allocating money. Basically, two general methods are used to do this; incremental budgeting and formula budgeting.

The incremental method separates a budget into the base amount, usually the amount received the year before, adjusted for annualized program costs and other things such as salary longevity increments; increases needed to maintain previous year program levels; and increases for new programs. This method has some practical benefits in that it tends to limit areas of analysis to those that require only immediate attention. Institutional prioritization of programs, long-range planning and effectiveness evaluation although possibly occuring are only assumed to have occured and are not checked. Allocating funds on this basis tends to focus on the increments and very little on the base. Another drawback that follows from this lack of attention to the base amount is that little attention is given to equitable allocation of funds among institutions. In fact, under this method, amounts in institutions budget bases may not be comparable for similar activities.

The formula method is another method of allocation of funds to institutions. It also simplifies the process and alleviates time and resource constraints somewhat. It also seems to deal more satisfactorily with equitable distribution of funds among institutions. A formula usually relates some measure; unit costs, workload (student faculty ratio), or productivity (faculty credit hours) to the amount that is requested in the budget. One has to be careful with formulas in the area of average costs, however. The formula is really only as useful as it reflects the actual cost of an institution. A simple formula doesn't usually deal adequately with small cost differences per unit from institution to institution. Too complex a formula does not suffer so much from this fault but may be very difficult to understand especially for legislators who normally lack the expertise and technical familiarity needed.

Another practical problem with formula budgeting is in the original development of the formula. A distinction that must not be overlooked in formula development is that between the pricing function of a formula and the cost basis it is developed from. Put more simply, basing a formula on what it costs now may have little or nothing to do with what it ought to cost. However, selecting the criteria for what each educational function or area ought to cost and then selecting who decides what it should cost are such difficult and nebulous questions to resolve that formulas are normally based on unit costs as they exist unless some obvious discrepancy is noted. In effect a formula may perpetuate and systematically increase the deficiencies already present in a system ... "the rich get richer and the poor get poorer." Nevertheless, with the preceeding cautions in mind formula budgeting offers more advantages than incremental budgeting and knowing some of the faults to watch out for beforehand helps to develop compensations for them. As an example of a formula that could be used for allocating state monies to community colleges in Alaska, Appendix IV outlines a procedure recently proposed by the Alaska Commission on Postsecondary Education for discussion by the various community college presidents.

Budget Development

Methods of institutional budget development have centered in recent years on complete budget review and buildup every time a budget is proposed. Implicit in this process is the development of performance indicators that will justify the continuance of a program. This process has probably never been completely used anywhere but it is popular in theory and has been attempted (however poorly) in many states. It goes by various names including Planning, Programming, Budgeting System (PPBS); Planning, Programming, Budgeting and Evaluation (PPBE); Performance Budgeting; and Zero-Based Budgeting. Recent proposals in Alaska by both the legislature and senior University of Alaska system administrators have indicated that zero-based budgeting is imminent. Before proceeding with this course of action it might behoove us to see how successful the process has been in other educational systems. Although it is true that Alaska is unique in many ways, so are many other states and there is nothing to lose by at least examining what has happened to others who have attempted what we are proposing in Alaska.

A recent review of these processes in Hawaii and Washington (Peterson, Erwin and Wilson (1977) is worthy of note since Hawaii's system of higher education is quite similar to Alaska's and both states mounted an all-out effort in time, money and personnel to make this kind of system work.

Hawaii

As early as 1961 Hawaii began initial attempts to link the allocation of monies to state agencies, including higher education, to some kind of performance measures. The Central Analysis Group was formed under a Federal grant as part of the Governor's Office. The initial action of this group was to define a plan for analyzing the contents of programs that called for specification of program objectives target groups, the use of workload measures and a request for identification of monies that each unit felt would indicate program effectiveness. The requirements and procedures were implemented piecemeal so that problems could be worked out on a scale that was easily modified. Computer Services and summary analysis reports were developed. The first complete pilot effort, submitted to the 1968 session of the legislature, involved the Department of Education. The system seemed potentially attractive and the legislature directed the entire public education system to adopt a PPB system by 1971. However, these actions were all being taken on an informal basis. In 1970 the legislature officially passed Act 185, The Executive Budget Act which assigned the implementation and evaluation of a PPB system to the Department of Budget and Finance. The law required that three sets of documents be submitted by each agency: 1) a six year program and financial plan to be submitted annually, beginning in December, 1972 for use in the 1973 legislative session, 2) an Executive budget to be submitted in December of every even-numbered year for use in the following odd-year's legislative session, beginning in December, 1972 for the 1973-75 budget biennium, and 3) The Variance Report, comparing actual to planned and budgeted forecasts of expenditures and performance to be submitted annually starting in December, 1973.

Detailed instructions were developed and training sessions were held in several places in the state to help units become familiar with what needed to be submitted. All data was collected on a dry-run basis to determine any operational problems that might occur. This was done in 1971 and an initial problem was immediately apparent; the volume of information was so great that the law was ammended to provide legislators with summary data only. However, even the summary plan consisted of 14 volumes and almost seven thousand pages. The law was further ammended to drop some of the requirements for information, but still resulted in a prohibitively large document.

In the higher education area an expert consultant on PPB was hired and guided the state to use of the National Center for Higher Education Management System's (NCHEMS) Program Classification Structure (PCS). Objectives and specific measures of them were proposed to the higher education community. As one might expect, the higher education community's response was a negative one. Some of their criticisms were valid ones. First, in addition to the new program-evaluation oriented budget they were also required to provide a traditional line item budget since legislators felt that this was the only type of information that tied expenditure to specific campuses and units. Also, a budget needed to be prepared for the system's internal budget allocations. The measure of program effectiveness requested were not being collected and extensive and costly data collection and analysis needed to be instituted. Therefore, for at least the first few years data on many indicators was listed as "data not available." Probably most devastating to the whole undertaking was the legislative reaction. Legislators were not particularly upset that much of the data was not available, since their primary interest was in the line-item budget and not the performance indicators. This, of course, was quickly perceived by the campuses and dampened their enthusiasm for supplying program effectiveness data.

The system has continued; however, its value is still believed in by both legislators and a growing number of higher education institutions. This apparent contradiction results more from objections to the implementation of performance budgeting than to the concept. It has had great value in getting administrators at all levels to look at the relative values of their programs so that constructive readjustment is possible. Moreover, one of the main reasons for legislative indifference to program effectiveness data provided goes back to the discussion of data versus information previously presented. As Erwin and Peterson (1977) indicate:

> "The fact that performance measures have had little or no impact on the state budgeting process is largely due to their apparent irrelevance to legislative concerns and their lack of credibility among many state agencies. The measures devised by DB and F with outside consulting assistance ask for data on most aspects of institutional performance. In the highly aggregated program structure, however, they do not tell legislators which programs and institutions need more money to accomplish their objectives and which are already getting more than they need. They merely provide numbers which may or may not have meaning for the legislator" (page 18).

Many of the institutional administrators have indicated that as their experience grows with performance budgeting it is an effective way to determine internal effectiveness and budget allocation methods. It provides some backup to answer criticisms of favoritism in budget allocation. Moreover, many institutional administrators felt they could more strongly endorse the conept if they had more input to the kinds of measures used to indicate program performance.

Washington

Washington's attempts at performance budgeting began formally in 1973 when the Legislative Budget Committee decided to conduct performance audits of all state agencies, although partial attempts at performance budgeting were tried in 1969 and again in 1971 with little success.

The main difference in implementation between Hawaii and Washington is that Washington has a much more decentralized and loosely coordinated system of postsecondary education and implementation was attempted simultaneously from many sectors. The State Board for Community College Education instituted a Workload Standards Study to determine program effectiveness, while the Council for Postsecondary Education made recommendations for quantitative and qualitive standards unrelated to the community college study. In addition, the Advisory Council on State Government Productivity, the Office of Program Planning and Financial Management, the Legislative Budget Committee and the voluntary Council of State College and University Presidents all have mounted performance based budgeting efforts that were somewhat unrelated to each other in terms of coordination. The result of all this uncoordinated effort has been considerable confusion. The only group to come up with a program evaluation structure for budgeting that has had some impact is the State Board of Community Colleges through their Workload Standards Study. This has been a result mainly of a strongly cohesive group of community college presidents who have a particularly good relationship with their board.

Many of the problems arising in education were related to defining what performance indicators were to be used and which were appropriate for different sectors of postsecondary education, as in Hawaii. Also, many institutions were not convinced that the indicators would really have any input in final budget figures, a real concern in most states that have attempted this kind of budgeting system. The results of many attempts have left Washington with a continuing interest in applying performance standards, but little else.

The purpose of these detailed descriptions on the performance budgeting process in Hawaii and Washington are not to discount the idea of performance evaluation, but to indicate the difficulties of incorporating the idea into state budgeting processes. Is there no hope then? Are the problems so complex that allocation of state money to higher education cannot be based on measurable indicators of performance? Some recent trends have indicated that the idea can work, but the focus of evaluation needs to be changed.

There are two major problems; one is defining the standards by which evaluation will occur and getting agreement on them, while the other is meeting the needs of legislators to tie expenditures to the institutions, programs and constituencies they represent. The legislature at the decision point of allocating funds will probably always want and need some sort of line item budget. Therefore, the evaluation of performance must occur before and separate from that step. It requires that: 1) evaluation of performance be worked out by the educational community and a single coordination point such as the Commission on Postsecondary Education in Alaska, and 2) that the results of the recommendations of this coordinating point have credibility with the legislature so that they may concern themselves with budget allocation and be assured that performance is being monitored and controlled in accordance with their wishes. This idea is expressed well by Harcleroad (1976) in reference to the role of state fiscal auditors, when he wrote:

> "If auditors can determine that institutions are following a credible process in reviewing educational programs, and if they can find objective evidence about the effects of programs (for example, in terms of whether graduates get jobs and whether many students complete their programs or drop out), then the auditor can concentrate on the extent

> to which the institution has an effective management program for its academic activities, which is a more feasible audit objective, than trying to assess academic quality directly" (page 38).

Revenue and Enrollment Projections

Alaska has had limited development of projecting enrollments and revenues and especially with their coordination in higher education budget planning. In many states both executive and legislative budget staffs make revenue projections often in consultation with university and business input. The different staffs usually review each other's estimates and then bargain over changes or use their own systems. By coordinating with university personnel in budget projections the academic planning process is greatly enhanced by putting some tentative limits on what may be possible in the next several years. Enrollment projections which still carry heavy weight in budget decisions at the state level probably need some development and coordination in Alaska. This is a process that is relatively well-developed in many states. Institutions and/or sometimes state higher education agencies usually make initial enrollment projections which are then reviewed by each agency that reviews institutional budgets for assumptions and accuracy. Initial budget estimates are then usually projected from enrollments of the previous year. Actual enrollments hopefully become available while budgets are under review and the final recommendations incorporate these more recent figures. While something of this sort is attempted in Alaska much more work needs to be done in projection techniques and accuracy in determining the balance of needs with revenue projections.

Recommendations

1. The University of Alaska system, in cooperation with the Alaska

Commission on Postseconday Education, should begin development of a funding formula/formulas for the system. Experience has shown that either separate formulas or major modifications in the parts of a single formula need to be made for two year and four-year schools.

2. That this formula be implemented and developed in a step-wise fashion so that discreet parts can be tested through experience.
3. That performance indicators of higher education effectiveness be simple and few at the legislative level, with the Alaska Commission on Postsecondary Education being the focus of detailed review.
4. That projections of enrollment be more fully developed as to technique and accuracy and that future budgetary needs be related to future revenue projections. Further, that this process be coordinated and guided by the Alaska Commission on Postsecondary Education.

CHAPTER 6

Facilities Planning

Especially during recent years increased demands for the services provided by institutions of postsecondary education have resulted in tremendous increases in physical plant investment. The skyrocketing costs of construction have emphasized the need for more effective planning and utilization of facilities. One outcome of this need has been the requirement for more specific justification of new facilities construction and a better picture of current utilization. As pointed out by the Western Interstate Commission for Higher Education (WICHE, 1971):

> "The processes by which capitol resources are allocated more and more is becoming dependent on quantitative evaluation of existing capacity and on carefully documented projections of future needs. In many instances, however, college administrators do not have the tools to allow them to respond effectively to these emerging requirements" (page 20).

In the physical growth and development of a university there exists a real need for a frame of reference within which daily decisions can be made, short-range problems resolved and long-range issues and alternatives evaluated. This plan for physical growth should try to accommodate change in educational needs and methods, financial resources, architectural philosophies and construction technology. The campus or educational setting (as much of Alaska education does not occur on a campus) and the nature of its physical growth should play an important role in implementing proposed educational programs. Thus, one of the purposes of a physical development plan should be to translate proposed educational activities into physical concepts. The long-range plan should propose cycles that will allow the educational enterprise to respond to its own needs as well as those of society to insure that long-range facility planning doesn't remain just prediction with no relation to operational reality. Short-range programs should result, when necessary, in the modification of the plan so that the whole process of development is under constant review. The long-range developmental plan should not actually dictate the actual form of the campuses of the future, but should specify some principles and directions for physical development, physical planning, design criteria and developmental options.

Some of the specific areas that should be included in a physical development plan should be future site selection, methods of funding, limits on institutional size and minimum conditions necessary for consideration of a new facility. In terms of actually planning the construction of an educational facility some or all of the following areas should be taken into account depending on the type of facility:

1. Visual Form
2. Architecture
3. Access to the Handicapped
4. Landscaping
5. Student Housing
6. Sports Areas
7. Research Areas
8. Classroom Station Needs
9. Functional Grouping of Facilities

10. Building Density
11. Topography
12. Parking
13. Special Service Areas
14. Utility need and location (Gas, Water, Steam, Refrigeration, Sewer System and Telecommunications)

Fiscal Considerations

Although future facility construction is based somewhat on future population projections and identified educational needs, considerations of cost and ability of the state to comply with these costs must be addressed. Obviously some compromise between what is needed and what the state can pay for are in order. Alaska, with its geographically widespread population and adverse weather conditions poses particular physical development problems. In terms of funding, decisions need to be made regarding the bonding capacity of the state for educational capital construction and whether more efficient methods of funding might be proposed. It would be wise to look ahead at projected costs as well as anticipated revenues. For instance, a background of costs, projected into the future, of building construction and equipment in Alaska postsecondary education would be quite useful in determining future needs for capital construction funds. Additionally, the future value of land anticipated for future use in postsecondary education, but not now owned, might be valuable. Finally, since all anticipated construction needs might not be met a system for priority construction should be worked out.

Public and Private Sharing of Facilities

An avenue of pursuit that could pay great dividends for Alaska is in using existing facilities in the private as well as public sector. Although this policy is pursued quite heavily in bush villages, where there may be only one building to accommodate all activities, more of this could be done in urban areas. Many times quite adequate facilities are available and not too inconveniently located near educational institutions that could be used by the institution on a part-time rental or trade agreement. It is infinitely less expensive than constructing a new facility and should be considered as an alternative whenever new construction is proposed. This policy can also apply to non-educational public buildings as well as private ones. Presently, in locations in Alaska where community colleges and senior colleges share facilities it is assumed that efficient well-planned usage of common space is occuring. However, little of this is known at the state level and not much more at the system level. It would be of great benefit in future educational planning to know the efficiency and workability of this process in specific terms.

Facilities Inventory

Frequently state level planners and sometimes even institutional ones are not aware of all the facilities in use or owned by public institutions and even less aware of these facilities at private institutions. If the facilities are known about, what is known about them is minimal. This is where a comprehensive facilities inventory is valuable. This type of inventory usually describes a building's characteristics in terms of number and types of rooms available and several other interior and exterior building characteristics. Although some Federally funded studies of facilities were done in this manner by the University of Alaska several years ago, no continuing statewide effort in determining inventory of facilities has been done to include public, private and proprietary education which could be very valuable in terms of future space needs as well as in previously mentioned sharing of facilities.

Facilities Utilization

Once the existence, location, condition and characteristics of all educational facilities have been determined by a comprehensive facilities inventory, it is important that one know what the facilities are being used for and some indicators of the amount and efficiency of their usage. Facilities utilization is more difficult to determine than a simple inventory, with its associated class scheduling and class enrollment requirements. Normally, facilities utilization concerns itself with instructional space and is concerned with how space is being used to carry out the instructional function. Although this is traditional it should not preclude utilization studies of non-instructional and/or auxilliary space such as student unions, office space and physical plant support.

One of the continuing problems in assessing the relative efficiency of facilities utilization is establishing fair and equitable norms that incorporate the special characteristics and restraints of localized areas. Whether acceptable usage of a classroom is 20 hours a week, 30 hours a week or three hours a week tends to depend on the type of facility, the type of instruction and the needs of the students. However, some indicators of efficiency need to be provided in this area and a place to start is with some national standards. Appendix V describes in detail several types of indicators of the efficiency of facilities utilization and some of the nationally accepted norms in several areas.

Construction of postsecondary educational facilities with public funds represents a significant financial commitment and those who fund this area have a right to know what the facilities are being used for and how efficient that usage is, before authorizing funds for more of the same.

Two increasingly important areas that are relatively new to facilities planning and have applicability in Alaska are energy conservation and accommodations for commuter students.

Energy conservation will have increasing significance at all levels and should be a major consideration in both the design of new buildings and the rennovation of existing facilities. In addition, a review and analysis of current operating practices with regard to such things as utilities usage and scheduling with an eye toward reduction of usage would be appropriate.

With the relatively large number of community college commuter-type campuses in Alaska, serious thought should be given in planning or rennovating facilities to the particular needs of commuter students. This might even have side effects of fostering more student cohesiveness and support, a particular problem of commuter campuses.

Recommendations

1. A specific planning effort should be mounted, possibly by a Master Plan Technical Committee on Facilities Planning to project future

capital construction needs, propose alternative capital construction funding, and recommend a priority system for future capital construction. This effort should be coordinated and approved by the Alaska Commission on Postsecondary Education.

2. The Alaska Postsecondary Education Commission in cooperation with the University of Alaska, private and proprietary institutions should coordinate an effort to determine a workable and continuing system of facilities inventory and utilization that could be used for all phases of educational planning and sharing of facilities as well as partial justification for new capital construction funding requests.
3. That the University of Alaska, in cooperation with the Alaska Postsecondary Education Commission propose future campus sites, any limitation on institutional size anticipated and the minimum requirements necessary to consider building a new campus.

CHAPTER 7

Proposed Statewide Procedure In Preparing the Alaska Master Plan for Postsecondary Education

Many different procedures and timelines have been followed in the various states to prepare a higher education master plan. Several of them are excellent and some of the best points of each, modified to fit Alaska's particular situation, have been included in this proposed plan. The procedure will be presented in a stepwise manner beginning with Commission action to establish a subcommittee to provide direction and evaluation of each step of the original master plan and finishing with the mechanisms for periodic review and modification of the original plan.

As many people as is practically possible should be involved in the formulation of the plan and representation from diverse areas should be a focus of participation. As Golenny (1971) writes:

> "The insistence throughout that broad participation leads to good planning should also be interpreted to mean that plans become politically acceptable because of such participation. A network of communications channels to the institutions, to the public, and to political leaders can be established during formulation stages of the plan. Indeed, experience seems to indicate that unless this is done the finished plan may never be accepted and/or implemented. It is the planning process, the kinds of people involved, and the leadership provided throughout the planning period that ultimately determines whether the plan is understood, is politically acceptable, and can be implemented as designed" (page 34).

Although plans of this sort are typically subject to much change the situation is even more pronounced in Alaska since no master plan for postsecondary education has ever been done in the state. Many talented and dedicated people will participate; frequent correction and revision will occur; clashes of ideology, political interest and personalities may occur; there will be some failures, but hopefully a lot of success.

Proposed Procedure for Master Planning

1. The Alaska Commission on Postsecondary Education should appoint a subcommittee of the Commission to guide and direct the compilation of a master plan for postsecondary education in Alaska.
2. That the charge to this subcommittee be to present such a plan, in writing, to the full Commission for its consideration one year from the date of the subcommittee's appointment.
3. That the planning, issues and procedures presented herein by the Commission staff be the starting place for the subcommittee's subsequent actions.
4. That the staff's Plan for Planning in Postsecondary Education be reviewed by this subcommittee and suggest priorities among the problems and issues to be resolved, and also suggest relevant goals and assumptions to be used. These priorities and goals may be submitted to the entire Commission for review before planning implementation.
5. In identifying problems and issues to be dealt with the subcommittee should try to limit the number of issues to be dealt with. Many times, too many controversial subjects dealt with at once may limit or even negate the possibility of achieving any of the objectives.
6. The subcommittee, after dividing the issues to be resolved and

planned for into fairly discrete areas, should select technical advisory committees in each of the areas consisting of experts in the field, interested citizens, legislators and community leaders. Special emphasis should be made to have representatives of public, private and proprietary education participate.

7. Each technical advisory committee should be charged in writing with obtaining necessary data making analysis and final recommendations in each area. A planning period should be defined. A five-year period (1980-1985) is suggested by the staff.

8. Once the subcommittee has selected the priorities, goals and issues to be dealt with prospective candidates for technical advisory committee participation should be identified and contacted until each technical advisory committee has been staffed in numbers and kind to the satisfaction of the subcommittee.

9. Seminars should be held between the subcommittee, the Commission Staff, and the Center for Staff Development in coordinating and defining the general purpose of the effort and what should be expected from each technical advisory committee. The Center for Staff Development, under contract to the Commission, will provide guidance and leadership to each of the technical advisory committees in completing their final reports. Overall guidance and resolution of problems should be provided by the Commission staff either through the Executive Director or the Coordinator of Planning and Research.

10. The Commission, through its staff or subcontracted to the Center for Staff Development should provide information, clerical services and

publishing services to each technical advisory committee. However, no member of the technical advisory committees should be paid unless acting in a consultative role.

11. Although guided and aided by the Commission staff, each technical advisory committee should establish its own research and review methods, analysis and recommendations. Conflict among technical advisory committee recommendations is bound to occur from area to area. This should not be forestalled, but mediated and resolved by the Commission subcommittee and the Commission staff after all technical advisory committee reports have been submitted.

12. The staff and subcommittee should make whatever changes it believes necessary in the plan and submit it to the full Commission for adoption.

13. Once the Commission has reviewed, ammended and adopted the plan it should be given wide dissemination to all legislators, the Governor, governing board, institutions and the public at large, upon request.

14. The Commission staff should arrange to provide briefings on the rationale and main points of the plan to the Governor and legislative leaders.

15. Any major dissention, disagreement and constructive suggestions provided after this wide dissemination should be included in the final plan.

16. Once the original plan has been done, a continuous review of each area in terms of collection of data for evaluation should be continued by the Commission staff as well as the staff of the University of Alaska system and appropriate private and proprietary

institutional personnel. Formats and items of information should be standardized and periods of data collection specified.

It is important to reiterate that once the major first-time effort in completing the initial master plan is complete, good continuing review and evaluation is essential. The staff of the Commission must work closely with institutional personnel in the public, private and proprietary areas to insure this occurs. None of the participants want to spend all this time, effort and money on a statewide master plan only to have it unused and outdated a few years after its completion.

APPENDIX I

ACADEMIC REVIEW
PROCEDURES AND CRITERIA

Step 1 - Need

Examples of criteria to measure need:

1. Student demand for the program.
2. Current and projected needs for graduates of the program as stated by employers in the state, region or nation as appropriate.

Step 2 - Quality

Examples of criteria to measure quality:

1. Average length of time full-time students complete program requirements.
2. Percentage of students that complete the program annually.
3. Professional examination or other requirements for employment (percent of graduates to pass professional examinations and percent of placement of graduates in the field).
4. Types and results of accreditation review.
5. Criteria, results and plans on evaluation of faculty.
6. Professional standing on the basis of any national rankings of the discipline or field.

Step 3 - Productivity

Examples of criteria to measure productivity:

1. Number of graduates in each of the five past years.
2. Number of students enrolled in the program (entry and drop-out rate).
3. Faculty work load.

Step 4 - Duplication

Examples of criteria to measure duplication:

1. Production of graduates from similar programs in the state, region, or nation.
2. Economics and improvements in quality to be achieved by consolidation and/or discontinuance.

Step [illegible] - Cost

Examples of criteria to measure cost:

1. Maximum costs per program based on:
    a. Level of program (Professional, masters, doctoral)
    b. Student level
    c. Size of classes and cost of courses
    d. Cost per program graduate
2. Trends in cost factors of preceding four year period and projections in cost factors for next four years.

Step 6 - Priority

Examples of criteria to measure priority:

1. Determination of new role and mission of an institution.
2. Ranking of the degree program according to institutional priorities.

Step 7 - Needs Analysis

Examples of criteria for further analysis:

1. Needs analysis - non-traditional factors such as new learning styles or new delivery systems.
2. Qualitative analysis:
    a. A review of faculty qualifications and activities.
    b. The curriculum (courses, credits).
3. Productivity analysis - justification of low productivity program (for example, it may be a necessary component of a high productivity program).
4. Duplication analysis - justification of "necessary" duplication.
5. Cost analysis - justification of high cost programs on basis of benefit to students, state, industry.
6. Priority analysis - designation of an institutional responsibility for a specific degree program by the executive/legislative branches of government.

A SURVEY OF STATE-LEVEL ACADEMIC PROGRAM REVIEW POLICIES AND PROCEDURES FOR HIGHER EDUCATION

Robert J. Barak

Information Required for Review of New Program

I. Degree Level

II. Program Description

- a. List curriculum
- b. Prerequisites
- c. Credit
- d. Method of Instruction
- e. Degree
- f. Description

III. Purposes and Objectives

- a. Consistency with institutional plan
- b. Consistency with institutional mission
- c. Other

IV. Need Analysis

- a. In-state need
- b. Student demand
- c. Manpower opportunity
- d. Other
- e. Dupl./Coop.

V. Cost Analysis

- a. Direct costs
- b. Indirect costs
- c. Reallocation
- d. Number years of projected cost
- e. Source of funds

VI. Resource Analysis

- a. Related programs
- b. Faculty/staff
- c. Educational
- d. Facilities
- e. Administration

VII. Accreditation

- a. Timetable
- b. Status
- c. Needs

VIII. Evaluation

a. Pre-approval
b. Post approval

IX. Statement of Adequate Funding

X. Availability of Adequate Student Aid

APPENDIX II

ECS FOLLOW-UP RECOMMENDATIONS REGARDING INSTITUTIONAL AUTHORIZATION FOR CONSUMER PROTECTION

FOLLOW-UP IMPLICATIONS

Based upon all of the obtained data and separate analyses of the states' and USOE's needs for a stronger state role in improved institutional authorizing and oversight for consumer protection purposes, AIR staff provided a number of follow-up recommendations.

For state agencies themselves, AIR especially noted as needed improvements:

(1) the elimination of non-trivial exemptions from state licensing requirements for (a) accredited institutions; (b) institutions that are only indirectly overseen by state professional licensing boards (e.g., barbering schools, cosmetology schools, nursing schools, driver training schools); (c) older and well-established institutions; and (d) institutions that are organized as non-profit.

(2) the addition of consumer protection provisions to state laws for authorizing and oversight of private degree-granting institutions, resulting in greater standardization of licensing requirements across the private nondegree and degree-granting sectors;

(3) the development of procedures that require private and public schools domiciled out-of-state to meet the same licensing requirements as private schools domiciled in-state, especially in the degree-granting sector;

(4) the elimination of other major coverage gaps, as identified in relation to the coverage of the ECS Model Legislation;

(5) greater intrastate cooperation among agencies that have consumer protection responsibilities, especially between the private school licensing agencies and (a) law enforcement and attorney general offices, (b) state course approving agencies for the VA, and (c) private school associations;

(6) greater interstate communications and cooperation among private school licensing agencies, especially in the degree-granting sector; and

(7) broader utilization of (a) better enforcement mechanisms to identify potentially abusive conditions, policies, and practices in postsecondary institutions and (b) education programs to enable students to become more effective consumers of education and complain more effectively if they encounter abuses.

In carrying out such needed improvements, AIR staff provided several specific suggestions that appeared workable based on successful state experiences. Suggestions were provided in the areas of: (1) the political process; (2) improved public relations; and (3) use of potential technical assistance resources from outside the state.

For the U.S. Office of Education, AIR noted the following implications.

(1) USOE should disseminate copies of the AIR report, including its Technical Addendum,[1] to all state agencies that express a desire to strengthen their laws and regulations. Further, if updated information becomes available through later replications of the state agency survey, this information should also be disseminated.

(2) DEAE should convene a workshop for staff of all state authorizing and oversight agencies, including those in the nondegree and degree-granting sectors, to go over the findings of this study and its implications for state agencies. If possible, this workshop should be co-sponsered by ECS and should include the participation of representatives of other national organizations concerned with improving the state licensing function. Possible topics to be discussed are suggested under staff development in point (6). Serious consideration should be given to making this workshop an annual event.

(3) USOE should begin to formulate an official policy statement encouraging all states to enact and enforce state authorizing and oversight standards

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[1] This Technical Addendum contains: (1) the names, addresses, and phone numbers of all state licensing/governing agencies contacted in the study; (2) summaries of almost 200 critical incidents provided by state officials illustrating particularly successful efforts to prevent or correct institutional abuses; and (3) summaries of the data obtained during interviews with state agency officials, arranged according to the type of agency.

that meet or exceed minimum consumer protection standards. The minimum standards should be based on the ECS Model State Legislation, with provisions added in areas where the model legislation has no coverage.

(4) USOE should strongly consider drafting and asking Congress to pass an amendment to the General Provisions section of Title IV of the Higher Education Act of 1965 providing federal funds for states that have enacted standards more extensive than the ECS Model Legislation. The amendment, which would be similar to Title X of the now-expired National Defense Education Act of 1958,[2] would provide state agencies with matching funds to be used in gathering objective, on-site data on the consumer protection policies, practices and conditions of institutions that applied for eligibility for federal assistance programs. Determination of which states have met or exceeded minimum standards could be done annually by the Commissioner via a small ad hoc advisory panel, as was done successfully under section 435(c)(C) of the Higher Education Act of 1965; 18 states were identified whose licensing decisions were accepted, in place of accreditation, to establish eligibility of proprietary schools for guaranteed student loans prior to the origination of the national proprietary school accrediting bodies.

(5) USOE should establish and maintain a "state licensing agency liaison center and clearinghouse." A major function of this center would be (1) the frequent collection of information about publicly-available state licensing agency actions, especially adverse actions with regard to schools, programs, school operators, and agents, and (2) the dissemination of this information to state licensing agencies in all other states. Information that is not

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[2] This title provided 50% matching funds to state education agencies for developing and improving state education data collection procedures and statistical services.

available to the public, such as on-going investigations, informal actions and temporary restrictions, or rumors, would not be collected or disseminated. Various dissemination mechanisms should be considered, including a newsletter, a WATS line, mailgrams, etc. These could also be a topic for the annual workshop.

Because the center would also provide liaison with state agencies regarding the federal eligibility system, it could disseminate important new information on topics of interest to the states. It could also serve as the locus in USOE for planning and carrying out the staff development activities to be discussed in the next point.

(6) USOE should contract for the services of an organization of national reputation to plan and carry out a continuing program of staff development activities for state licensing agency personnel. These activities might overlap with training activities carried out during the annual workshop, but they would be more extensive, based on detailed "needs assessments" and providing for special tailored regional or even statewide workshops. Major topics would be likely to include: (1) better procedures for licensing schools/programs/agents; (2) strategies for passing stronger laws and regulations; (3) strategies for obtaining increased enforcement resources; and (4) more effective oversight of interstate educational operations.

(7) USOE should consider making more extensive use of the data collected during this study. Even though AIR performed numerous analyses, these only scratched the surface of the analyses that might be performed. Examples of possibly-useful secondary data analyses could be contributed by state agency staff at the workshop discussed in point (2). As an example, it would be instructive to use the state survey data to create "indicators"

of oversight practices that could be correlated with the number of agency actions or possible "effectiveness" ratings by a panel of experts. Promising indicators could then be used by state agency personnel to internally gauge their own effectiveness against these variables and take steps to improve their practices. The survey data now exist on computer tapes which could be made available to other researchers at very low cost.

For another example, the state law/regulation coverage areas that received "++" ratings in comparison to the ECS Model Legislation could be extracted to create a "Composite State Regulation", based on the Model Legislation but containing much more depth. Because it would be based on recent sources, this composite regulation would also be more up-to-date than the 1973 Model Legislation, which is obsolete in a few of its provisions.

For a final example, it would be instructive to correlate data on coverage and "effectiveness" of state laws/regulations with other data from federal sources (e.g., DEAE, the Bureau of Student Financial Assistance) regarding the existence of potential institutional abuses in the federal student assistance programs (e.g., loan default rates, student complaints, fraud cases, etc.). The demonstration of a relationship would strengthen the rationale for further federal interest in improving state authorizing and oversight of postsecondary educational institutions.

APPENDIX III

A PROPOSAL FOR AN EDUCATION INFORMATION NETWORK IN ALASKA

A PROPOSAL FOR AN EDUCATION INFORMATION NETWORK IN ALASKA

I. INTRODUCTION

Alaska's goal in providing postsecondary educational/occupational information to the State's urban and rural populations is to expand existing channels of related information into a coordinated statewide information network in order to better serve all Alaskans. To meet that goal, the Alaska Commission on Postsecondary Education will: (1) establish a central clearinghouse of information about existing educational/occupational information and advisement services as well as provide supplemental postsecondary education information for which there is an identified need; and (2) develop a coordinated network for the statewide delivery of educational/occupational information and advisement. The Commission's primary concern is to reach underserved populations particularly in those rural areas with restricted access to information and guidance regarding education and training opportunities. Due to a wide variety of cultural and geographical settings, Alaska is in a unique position to serve as a testing ground for numerous information delivery methods.

II. PROJECT OBJECTIVES

The Commission will identify and gather information about existing educational information services assuring that all information will be made available in a useable format to those institutions, agencies, or persons currently supplying a portion of the services identified. The objective here is to make current information providers aware of all existing education information services in the State to which they could refer clients in cases where the client requires services that they are not able to provide.

The problem in Alaska, therefore, is not the lack of educational/occupational information and advisement mechanisms, but the lack of knowledge about what services actually exist. While the identification and collection of information about existing services is still a necessary first step, it has already been initiated with the preliminary identification of over 50 programs providing educational or occupational information, referral, and advisement in Alaska.

The delivery of information about such programs in a format accessible to all interested Alaskans will be the Commission's main focus of attention. In order to build on the experience and expertise of existing efforts, yet reach those persons not currently served in the rural areas, the Commission will identify those entities (individuals, positions, or programs) that presently exist in each locale to whom potential clients already go for general advice and guidance. Depending upon the community, such a resource might be a clergyman, principle teacher, the Chamber of Commerce, an alcohol treatment center, a community health aide, a library, etc. Once a resource person or program and contact person have been identified, the most appropriate information delivery vehicle can be chosen to best supply that community resource and in turn, the general public, with information in a useable, efficient format. Again, due to a wide variety of geographical and cultural settings with rural communities ranging in population from 25 to 17,000, Alaska should prove to be an excellent pilot state for assessing the various means of providing educational/occupational information and advisement.

III. PROJECT IMPLEMENTATION

Within a twenty-four month period, three areas or plans of action will be implemented: (1) information collection; (2) identification of information recipients; and (3) providing a network of delivery methods which promote reasonable client access to services. Information dissemination and an on-going assessment of delivery methods will be instigated during the first year of the project period.

1. Information Collection
    a. identify existing services
    b. define the functions of each entity which provides those services
    c. survey existing services for "gaps" in the information they are able to provide clients (either directly or through referral)
    d. develop additional information for which client need has been identified. (This will be an on-going process.)

2. Identification of potential information recipients
    a. identify existing service providers
    b. contact local residents and service agencies for persons or programs most often consulted by potential clients within each community not currently served.

3. Information delivery methods to be tested
    a. provide for the dissemination of a printed resource/referral directory to resource persons and service providers (to be written and updated by the Commission.)
    b. establish circuit riding counseling on a regional basis. (Referrals would come from the identified community resource person or service.)
    c. establish a telephone "hotline" to the Commission for direct referral and information dissemination in coordination with the Governor's Office of Telecommunications
    d. make use of the 100 small earth stations, 26 mid-route earth stations, and other projects under the auspices of the Governor's Office of Telecommunications currently connecting over 100 rural locations by satellite.
    e. link up with existing computer referral service currently operating in one of the larger rural locations and in one of the smaller urban areas. (The project referred to here is the Governor's Office Division of Policy Development and Planning "Multiple Resource Planning and Service Delivery Project" in Bethel and Fairbanks.)
    f. contract with the Department of Education to expand the localization and dissemination of the Oregon Career Information System currently being tested in the State
    g. enter contractual arrangement with any of the five Department of Education resource centers around the State to provide information and advisement services to all communities within their region
    h. contract with existing information or service providers (individuals, institutions, or agencies) to expand current services to areas of the State not currently served (e.g., SOICC, Adult Basic Education, rural libraries)

i. advertise and employ other public awareness techniques to facilitate direct client access to telephone and printed information and referral services available from the Commission

IV. PROJECT EVALUATION

Each of the above delivery methods will be implemented at a specific location within the State as appropriate to the geographical and cultural setting. The choice of which delivery method is most appropriate to a particular region or community will be made by the Commission in consultation with an existing local advisory body, potential users of the service(s) to be provided, and existing service providers in order to determine the transferability of services from one locale to another, and to assess the potential for the successful expansion of such services. Within two months after implementation, two methods of evaluation will be employed.

First, in order to determine which types of resource persons or service providers are utilized most often by clients, each resource individual, institution, or agency including the Commission will be surveyed regarding the number of persons utilizing the service, the type of clientele and any information requested which could not be provided. Second, a random sample of clients for each type of information dissemination method tested will be questioned as to their reaction to and impression of the service provided. Client follow-up will be incorporated into the evaluation plan for additional assessment of project strengths and weaknesses.

The results will be to eliminate, or change unsuccessful or inappropriate delivery methods and allow for the expansion of successful efforts (and the testing of new methods) for improved statewide access to education information services.

V. PROJECT STAFF

The Programs Coordinator for the Alaska Commission on Postsecondary Education, Jane Byers Maynard, will serve as Project Coordinator in the establishment of an education information network in Alaska. This person is also responsible for the administration of the State's participation in the Title IV-A, HEA program for Educational Information Centers. Title IV-A funds and matching State funds will be used in part to establish contractual arrangements with existing educational information services in the State for the expansion of services as outlined under Project Implimentation. Staffs of existing services will be involved in the planning, implementation, and operational phases of providing a network of information delivery methods in Alaska. In addition, as indicated under Project Evaluation, local advisory bodies and potential clientele will be consulted to insure that the most appropriate delivery service is chosen for each location. Finally, the Commission presently oversees the activities of the State's Center for Staff Development, and it is conceivable that the Commission could contract with the Center to provide training for newly identified resource persons to provide information and advisement for the underserved rural population.

VI. STATE COMMITTMENT

The State of Alaska has been actively moving in the direction of a coordinated Statewide information system over the last five years. The impetus for this movement was the establishment of the Governor's Office of Telecommunications in early 1973.

Telecommunications technology has linked together vast areas of the State, making telephone service, satellite television, radio broadcasts, and teletype and computer terminals a reality in remote communities. In addition, telecommunications alternatives are currently being explored for the realization of a satellite-based educational delivery system. Alaska "is in the unique position of setting international precedents for a statewide network fully utilizing all aspects of telecommunications."[1]

Additional evidence of State committment can be found in the funding of several programs in a variety of State agencies, all of which directly relate to the Postsecondary Commission's goal of building upon existing information services. For example, the Governor's Office Division of Policy Development and Planning is pilot testing a "Multiple Resource Planning and Service Delivery" project. This is an interdepartmental effort which coordinates human service delivery for four State departments: Education, Community and Regional Affairs, Health and Social Services, and Labor. A second project, funded by the Governor's Manpower Services Council, will enable the Department of Education to field test an Alaska Career Information System (based on Oregon's system). This demonstration project is scheduled to begin within the next few months, and contact has been initiated for the eventual cooperation between the Postsecondary Commission and the Department of Education is providing localized postsecondary information via the career information system. Many other programs, of course, such as Vocational Education, SOICC, and Alaska's Community Service and Continuing Education program, are committed to providing services to meet the public's education/occupational information and advisement needs. The Alaska Commission on Postsecondary Education intends to make such services visible and accessible to all citizens in the State.

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[1] Alaska Office of Telecommunications. Educational Telecommunications Alternatives for Alaska, January 30, 1976.

PRELIMINARY IDENTIFICATION OF STATE CONTACTS/CURRENT EFFORTS IN PROVIDING SERVICES OUTLINED IN EIC LEGISLATION

1. Information and talent search services for persons with cultural, financial barriers:

Agency	Program	Contact
Dept. of Education	Vocational Rehabilitation	Mike Morgan
Dept. of Education	Adult Basic Education	Clark Jones
Dept. of Education	Talent Bank Service	Coordinator
U. Alaska, Anchorage	Adult Literacy Lab.	Donna McAlpine
U. Alaska, Anchorage	Student Services	Pat Reeves
U. Alaska, Anchorage	Educational Opportunities Center	Pat Reeves
U. Alaska, Fairbanks	Cross-Cultural Education Development	Mike Gaffney
U. Alaska, Fairbanks	SOS-Special Services (TR10)	Frank White
U. Alaska, Fairbanks	Upward Bound (TR10)	Richard Gumm
Alaska Federation of Natives	Upward Bound (TR10)	William Wood
Alaska Federation of Natives	Talent Search	Alan Rider
EEO	Minority and Female Talent Bank	Governor's Office
Policy Development and Planning	Multiple Resource Planning Project	Marcia Freer
Fairbanks Native Assoc.	Counseling Program	John Filip
Alaska Native Foundation	Ak. Native Human Resources Development Program	Bill Haw
Non-profit Native Regional Corporations		Education Coordinators
Kuskokwim Community College	Village Outreach Program	Fred Bigjim

2. Information and referral re postsecondary education and training programs and entrance requirements:

Agency	Program	Contact
Dept. of Education	Vocational Rehabilitation	Mike Morgan
Dept. of Education	Adult Basic Education	Clark Jones
Dept. of Education	Public Information Program	Harry Gamble
Dept. of Education	Career Information System Project	Gary Fuller
Dept. of Education	Voc. Ed. Regional Councils	Glen Erickson
Dept. of Education	Adult and Continuing Education	Gerald Hiley
Dept. of Education	Regional Resource Centers	5 Directors
Dept. of Education	State Library Network	Margaret Liebowitz
Postsecondary Commission	Directory of Postsecondary Institutions	Jane Maynard
Postsecondary Commission	Veterans Programs	James Beima
Postsecondary Commission	Center for Staff Development	Ron Daugherty
Dept. of Commerce & Economic Development	Occupational Licensing	Sharon Andrew

University of Alaska	Rural Educational Affairs	Extension Center Director
University of Alaska	Educational Opportunities Center	Pat Reeves
All existing on-campus	Counseling Programs	
High School Counseling Offices		
Industrial Training Programs		
Labor Union Apprenticeship Programs		

3. Information and referral re available financial assistance and application procedures:

Agency	Program	Contact
Alaska Federation of Natives	Health Career Guide	Mary Susook
Non-profit Native Regional Corporations		Education Coordinators
Bureau of Indian Affairs	Scholarship Program	BIA Counselors
Alaska Native Brotherhood	Scholarship Program	Herb Hope
U. Alaska, Anchorage	Educational Opportunities Center	Pat Reeves
U. Alaska, Anchorage	Student Services	Pat Reeves
Dept. of Education	State Library	Margaret Liebowitz
Dept. of Education	Vocational Rehabilitation	Mike Morgan
Postsecondary Commission	Student Loan Program	Mary Ann Isturis
Postsecondary Commission	United Student Aid Fund/GSL/ BEOG	Mary Ann Isturis
Postsecondary Commission	WICHE Programs	Jane Maynard
Postsecondary Commission	Veterans Programs	James Beima
All on-campus Counseling Programs		
High School Counseling Offices		
All Institutional Offices of Financial Aid		
Banks		

4. Information and referral re job placement, vocational education and training programs:

Agency	Program	Contact
Alaska Skill Center		Robert Booher
Hutchison Adult Career Development Center		Robert Bercell
Indian Action Program		James Segura
Anchorage School of Barbering		Manual Norat
Welding Institute of Alaska		Rick Schneider
Alaska Business College		Bettye Smith
Dept. of Public Safety	Training Academy	Michal Korhonen
BIA	Employment Services	Counselors
Alaska Federation of Natives	Regional Corporations	Career Education Coordinators
Alaska Federation of Natives	Health Career Development	Mary Susook
Dept. of Labor	CETA Regional Training Programs	Coordinators
Dept. of Labor	Employment Security	David Gale
Dept. of Labor	Employment Services	Counselors
Dept. of Labor/ Dept. of Ed.	SOICC	Glen Erickson
Dept. of Education	Career Information System Project	Gary Fuller

Dept. of Education	Vocational Rehabilitation	Mike Morgan
Dept. of Education	Rural Student Vocational Program	Jane Moffat
Postsecondary Commission	Veterans OJT	James Beima
Dept. of Commerce and Economic Development	Veterans Affairs	Jack Tinsley
Dept. of Community and Regional Affairs	Local Government Training	Palmer McCarter
Governor's Office	Manpower Services Council	Lois Lind
Policy Development & Planning	Multiple Resource Project	Marcia Freer
U. Alaska, Anchorage	Educational Opportunities Center	Pat Reeves
U. Alaska, Cooperative Extension	Local Government Training	James Matthews
U. Alaska, Anchorage	Rural Educational Affairs	Sam Rogers
U. Alaska	Military Base Programs	Education Directors
College Work Study Programs		
High School Counseling Offices		
Labor Unions and Private Firms		

5. Competency-based learning opportunities and testing:

Agency	Program	Contact
Dept. of Education	Adult Basic Education	Clark Jones
Dept. of Education	Teacher Certification	Jean Jeffers
Dept. of Education	Correspondence Study	Wanda Cooksey
U. Alaska, Fairbanks	Correspondence Study	Carla Roberts

6. Guidance and Counseling in educational/occupational opportunities:

Agency	Program	Contact
Dept. of Education	Vocational Rehabilitation	Mike Morgan
Dept. of Education	Career Information System Project	Gary Fuller
Dept. of Labor	Employment Security	David Gale
Dept. of Labor	Employment Services	Counselors
Dept. of Labor	SOICC	Glen Erickson
Dept. of Commerce and Economic Development	Veterans Affairs	Jack Tinsley
U. Alaska, Anchorage	Educational Opportunities Center	Pat Reeves
BIA	Employment Assistance Offices	Office Directors
AFN	Regional Corporations	
All on-campus counseling programs		
High School Counseling Offices		
Labor Unions		

7. Remedial/tutorial services:

Agency	Program	Contact
Dept. of Education	Adult Basic Education	Clark Jones
U. Alaska, Anchorage	Adult Literacy Lab	Donna McAlpine
U. Alaska, Anchorage	Student Services	Pat Reeves
U. Alaska, Fairbanks	Student Orientation Services	Frank White
Friendship Literacy School		Virginia Back
Literacy Council of Alaska		Roselynn Cacy
Alaska Bar Review/B.A.R., Inc.		Kenneth Jacobus

APPENDIX IV

PROPOSED*COMMUNITY COLLEGE FUNDING FORMULA

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*This is an initial draft only. The formula will be revised substantially over the next few months.

COMMUNITY COLLEGE FOUNDATION

Section 1. Community College Foundation Account. (a) There is created the community college foundation account. The account consists of appropriations for distribution to community colleges in accordance with the provisions of this chapter.

(b) The funds of this account may be used only for operating expenses of public community colleges.

Section 2. State Funds. (a) The amount of state funds for which a community college may qualify is calculated by multiplying the number of academic, vocational, and community service instructional units, for which the institution is eligible, by the established instructional unit costs, with adjustments made for enrollment levels and geographic cost differentials. The sum of these three products is the total for which the community college qualifies.

(b) If the total funding for which an institution is eligible decreases by 10 percent or more from one year to the next, except for institutional closure, the community college may use the last year before the reduction as a base year and offset its reduction according to the following schedule: (1) for the first year after the base year, the college is entitled to 75 percent of the difference between the base year funding and the calculated funding level for the first year after the base year; for the second year after the base year, the college is entitled to 50 percent of the difference between the base year funding and the calculated funding level for the second year; for the third year after the base year, the college is entitled to 25 percent of the difference between the base year funding and the calculated funding level for the third year. The schedule is applicable within those three years following the base year only as long as the calculated funding level remains below the base year level. In computation of eligibility under this subsection, changes to the basic instructional unit rates shall be factored out, however, for determination of actual funding levels, such changes in rate shall be included.

Section 3. Instructional Units. (a) The total number of instructional units within each community college is the sum of:

(1) the number of academic instructional units as determined by Section 5 of this chapter;

(2) the number of vocational instructional units as determined by Section 5 of this chapter; and

(3) the number of community service instructional units as determined by Section 5 of this chapter.

Section 4. Table of Instructional Unit Factors. (a) Geographic factors:

Institution	Factor
Anchorage Community College	1.000
Juneau-Douglas Community College	1.002
Kenai Peninsula Community College	1.096
Ketchikan Community College	1.010
Kodiak Community College	1.126
Kuskokwim Community College	1.550
Matanuska-Susitna Community College	1.040
Northwest Community College	1.675
Sitka Community College	1.042
Tanana Valley Community College	1.126

(b) Enrollment level factors:

Student Credit Hours Produced	Academic and Vocational Factors	Community Service Factors
First 1,000	.02500/SCH (E_1)	.01000/SCH (E_5)
Second 1,000	.01333/SCH (E_2)	.01000/SCH (E_6)
Next 2,000	.01167/SCH (E_3)	.01000/SCH (E_7)
Over 4,000	.01000/SCH (E_4)	.01000/SCH (E_8)

Section 5. Instructional Unit Allotment. (a) Academic instructional allotments will be calculated on the following basis:

$I_a = G\sum E_i$, where I_a = total academic instructional units, G = geographic factor, and E = enrollment level factors ($i = 1$-4).

(b) Vocational instructional allotments will be calculated on the following basis:

$I_v = G\sum E_i$, where I_v = total vocational instructional units, G = geographic factor, and E_i = enrollment factors ($i = 1$-4).

(c) Community service instructional allotments will be calculated on the following basis:

$I_{cs} = G\sum E_i$, where I_{cs} = total community service instructional units, G = geographic factor, and E_i = enrollment factors ($i = 5$-8).

Section 6. Base Instructional Unit Costs. (a) The base instructional unit costs for fiscal year beginning July 1, 1978 and ending June 30, 1979 are:

academic instructional unit cost	\$ 6,000
vocational instructional unit cost	\$12,000
community service instructional unit cost	\$ 1,620

Section 7. Supplemental Programs. (a) In addition to the amounts authorized to be paid community colleges under this chapter, supplemental funding requests or request for funding supplemental programs may be submitted.

(b) Requests for supplemental funding or supplemental program funding shall be submitted during the established budget cycle and shall contain board recommendations and approval.

Section 8. Instructional Program Review. The determination of the classification of courses and programs as being either academic, vocational, or community service will be made by the board, however, classification definition and additions to existing programs and courses within a particular classification must be reviewed by the Alaska Commission on Postsecondary

Education. The commission will forward the results of its review, along with appropriate recommendations, to the Legislature and Governor, as well as to the board.

Section 9. Definitions. In this chapter, unless the context otherwise requires

(1) "academic instructional unit" means the aggregate of all direct and indirect services necessary to provide a standard level of instruction in an academic or transfer community college course or program;

a). "direct services" include, but are not limited to, supplying instructional services, reference materials, and certain student and instructor supplies;

b). "indirect services" are those auxiliary or supporting services that complement direct services and include, but are not limited to, administration, academic support, library services, institutional support services, and student services;

c). "direct and indirect services" do not include community service instruction, capital outlay, research centers, or debt service.

(2) "board" means the Board of Regents of the University of Alaska;

(3) "commission" means the Alaska Commission on Postsecondary Education;

(4) "community service instructional unit" means the aggregate of all indirect services necessary to provide a standard level of instruction in a community service community college course, workshop, seminar, or program;

(5) "vocational instructional unit" means the aggregate of all direct and indirect services necessary to provide a standard level of instruction in a career or vocational community college course or program.

APPENDIX V

FACILITIES INVENTORY AND UTILIZATION STANDARDS AND MEASURES

INSTRUCTIONAL AND LIBRARY SPACE

Instructional and Library Space is the sum of all rooms which carry both a program designation of 1.0 Instruction, 4.1 Library, or 8.1 Unassigned, Capable of Use, and one of the room use codes listed below, with the exceptions that office space be omitted from program 8.1 and all space with category codes 1200--Health Professions and 2300--Theology be excluded from the sum:

110	Classroom
115	Classroom Service
210	Class Laboratory
215	Class Laboratory Service
220	Special Class Laboratory
225	Special Class Lab. Svc.
230	Individual Study Laboratory
235	Individual Study Lab. Svc.
310	Office
315	Office Service
410	Study Room
420	Stack
430	Open Stack Reading Room
440	Library Processing Room
455	Study Facilities
510	Armory Facilities
515	Armory Facilities Service
520	Athletic-Physical Ed. Fac.
525	Ath.-Phys. Ed. Fac. Svc.

STUDENT CLOCK HOURS PER WEEK

Student Clock Hours Per Week (or student contact hour or student clock hours) is a measure which reports the sum of the number of scheduled hours of instruction received by all students, where one student clock hour equals one hour of scheduled instruction for one student. This measure is tabulated separately for other teaching facilities (all-room use, except 110 and 210). An hour of instruction is defined as a class period where duration is within the parameters of 45 minutes to 74 minutes. An hour and a half of instruction is defined as a class period where duration is within the parameters of 75 minutes to 104 minutes.

CAPACITY/ENROLLMENT RATIO

A Norm: 4 square feet of instructional and library space per hour of instruction

The capacity/enrollment ratio measures the efficiency of use of educational facilities in gross terms. Although it is usually expressed as an abstract number, it could be referred to as square feet per student hour of instruction. It is one of the most significant statistics in that it is a factor used in considering an institution's request for federal funds for equipment and buildings.

Of more importance from a managerial viewpoint is the fact that it reflects the overall relationship between available instructional and library (I & L) facilities and the demand which the academic program of instruction, in combination with student enrollment, places upon such facilities. The capacity/enrollment ratio (C/E ratio) is obtained by dividing the assignable square footage of I & L facilities by the total scheduled student clock hours of instruction. By use of this measure, functional, as well as physical adequacy or crowding of instructional and library facilities may be observed. Generally speaking, the numerically lower the capacity/enrollment ratio, the higher the degree of utilization. In evaluating by this index, however, the fact should be recognized that an institution with a large percentage of graduate work, particularly in fields such as engineering or agriculture, will generally have a higher C/E ratio, even though it may be utilizing its facilities as well as another institution.

A C/E ratio between 3.00 and 4.00 is considered within a desirable range. A C/E ratio over 5.00 should be subject to analysis.

$$\text{C/E Ratio} = \frac{\text{ASF of Instr and Libr Space}}{\text{Student Clock Hours Per Week}}$$

ACADEMIC FACILITIES

The term "academic facilities" includes both instructional and library facilities and instruction-related facilities. Instruction-related facilities include all rooms or areas (other than instructional and library facilities) which are used for purposes related to the instruction of students or for research, or for the general administration of the educational or research programs of institutions of higher education.

In broad terms, academic facilities is the sum of all the assignable areas of a campus except those used for museums and galleries, teaching hospitals, social and cultural development, student support, faculty and staff services, community relations, independent operations, and those areas unassigned, incapable of use. This definition is technically inexact, but it conveys the concept of academic facilities.

Technically, the term comprises the total assignable square feet of a campus less all rooms bearing category codes 1200 and 2300; all rooms bearing room-use codes 060, 070, 523, 630, 635, 660, 665, 670, 675, 750, 910, 919, 920, 935, 950, 955, and 970; and the remaining rooms assigned program codes 42, 51, 55, 66, 67, and 70; plus all deleted rooms which bear a 7320 category code. This definition was developed to replace the definition contained in Appendix C of OE Form 1031, 7/72 because the new facilities manual made the earlier definition obsolete. The new definition has never been officially sanctioned.

ASSIGNABLE SQUARE FEET OF ACADEMIC FACILITIES PER FTE STUDENT

A Norm: 100 square feet of academic space per FTE student

The U. S. Office of Education has used 100 assignable square feet of academic facilities per FTE student for several years as a planning factor. This now is usually translated to 150 gross square feet per FTE student on the basis of past studies.

These measures represent a middle ground and are more valid when applied to a group of institutions. Academic facilities space requirements tend to increase directly with advancing academic level. Institutions which offer the program of liberal arts and science with education and business curricula often tend to have values below 100 assignable square feet, and institutions which offer agriculture and engineering curricula often tend to have values greater than 100.

More specific norms may be found in the U. S. Office of Education publication "Federal Support for Higher Education Construction: Current Programs and Future Needs." This publication provides data by category of institution for departments of instruction and research, library, other academic and total academic. An excerpt of the table follows:

Assignable Square Feet per FTE - Total Academic

Total all institutions	107
Total public institutions	103
Total private institutions	115

	Total	Public	Private
University and 4-year	116	114	119
University	136	132	150
4-year	98	93	103
2-year	70	70	75

$$\text{ASF of Acad Fac Per FTE Stu} = \frac{\text{ASF of Academic Facilities}}{\text{Number of FTE Students}}$$

AVERAGE WEEKLY ROOM HOURS OF INSTRUCTION IN CLASSROOMS

A Norm: Optimum use of classrooms = 30 hours per week

Average room hours of instruction per classroom is the ratio of the total room hours of instruction per week to the total number of classrooms in the institution. The term "room hours of instruction" is defined as the number of hours of scheduled instruction, regardless of class size, occurring in a room during a one week period. Room hours of instruction is indicative of the number of class periods a room is used. For example, three classes meeting for one hour each and one class meeting for three hours would each generate three room hours of instruction.

The measure tends to indicate the adequacy of the number of available classrooms to meet the needs of an institution's instruction program. If the daytime use is twenty hours or less per week, one can assume the number is adequate on the basis that theoretically all classes can be scheduled between eight and twelve o'clock in the morning. The large amount of nighttime utilization in some colleges tends to distort the "all hours" data as an assessment tool. "Daytime" utilization refers to all classes with beginning times between and including 0500 and 1659 (24-hour clock); "nighttime" utilization references all classes with beginning times between and including 1700 and 1459; "all hours" represents the sum of "daytime" and "nighttime" utilization.

$$\text{Avg Rm Hrs} = \frac{\text{Total Rm Hrs of Instr in Classrooms}}{\text{Total Number of Classrooms}}$$

AVERAGE WEEKLY ROOM HOURS OF INSTRUCTION IN CLASS LABORATORIES

A Norm: Optimum use of class laboratories = 20 hours per week

Average room hours of instruction per class laboratory is the ratio of the total room hours of instruction per week to the total number of laboratories in the institution. The specialized nature of a class laboratory and its interrelationship with a particular course of instruction limit the use of this measure as an assessment tool.

In order to obtain an evaluation of its laboratory facilities, an institution would have to assess each class laboratory on the basis of such factors as use, requirements, costs of operation, and relationships to other laboratories and the academic program.

$$\text{Avg Rm Hrs} = \frac{\text{Total Rm Hrs of Instr in Laboratories}}{\text{Total Number of Laboratories}}$$

AVERAGE WEEKLY USE OF STUDENT STATIONS IN CLASSROOMS

A Norm: Optimum student station use for Classrooms = 18 hours per week

Average student station hours per week is the ratio of total student hours of instruction per week to total number of student stations in available teaching rooms. "Daytime" utilization refers to all classes with beginning times between and including 0500 and 1659 (24-hour clock); "nighttime" utilization references all classes with beginning times between and including 1700 and 0459; and "all hours" represents the sum of "daytime" and "nighttime" utilization.

The 18.0 hours per week norm is based on using classrooms an average of 30 hours per week with a 60% utilization of student stations when classrooms are in use.

$$\text{Avg Stu Sta Hrs} = \frac{\text{Total Stu Hours of Instr in Classrooms}}{\text{Total Stu Sta in Classrooms}}$$

AVERAGE WEEKLY USE OF STUDENT STATIONS IN CLASS LABORATORIES

A Norm: Optimum student station use for class laboratories = 16 hours per week

Average student station hours per week is the ratio of total student hours of instruction per week to total number of student stations in available teaching rooms. "Daytime" utilization refers to all classes with beginning times between and including 0500 and 1659 (24-hour clock); "nighttime" utilization references all classes with beginning times between and including 1700 and 1459; "all hours" represents the sum of "daytime" and "nighttime" utilization.

The 16 hours per week norm is based on using class laboratories an average of 20 hours per week with 80% utilization of student stations when laboratories are in use.

"Higher Education Facilities Planning and Management Manual Two" points out (page 126):

> "Occupancy Ratio can be expected to decrease as the level of the course and the degree of specialization increase."
>
> "Average Station Occupancy Ratios for class laboratories serving lower division multi-sectioned courses may range from 75% to 85%."
>
> "Average Station Occupancy Ratios for class laboratories serving specialized upper division courses may range from 50% to 70%."

$$\text{Avg Stu Sta Hrs} = \frac{\text{Total Stu Hours of Instr in Labs}}{\text{Total Stu Stations in Labs}}$$

PERCENT STUDENT STATION UTILIZATION, CLASSROOMS AND CLASS LABORATORIES

Generally accepted norms are:

Classrooms	60% Student Station Utilization
Class Laboratories	80% Student Station Utilization

The percent student station utilization expresses the ratio of the student stations occupied to the student stations available when rooms are in use. Percent student station utilization is reported relative to the total time that such rooms were actually used. The following formula is used where "potential student hours of instruction" equals "total student stations of a scheduled room" x "hours room is scheduled."

$$\%\ \text{Student Station Utilization} = \frac{\text{Total Student Hrs of Instr}}{\text{Potential Student Hrs of Instr}}$$

SPACE FACTORS

General. A space factor is defined as the assignable square feet of teaching space per student clock hour of instruction per week. It is an assessment measure which is a composite of both space allocation and space utilization in one simple term. This measure takes into account such indicators as the number of room hours scheduled per week, the number of student station hours per week, the percent of student stations scheduled per week, the assignable square feet of each type of room, and the assignable square feet per student station. It may be expressed as:

$$SF = ASF/WSH$$

or

$$SF = \frac{\text{ASF/Station}}{\text{Hrs/Wk} \times \text{\% Station Occupancy}}$$

where ASF is assignable square feet and WSH is weekly student hours.

SPACE FACTOR FOR CLASSROOMS. A space factor of 0.89 is obtained if the norms stated in previous tables are substituted in the formula:

$$\text{Classroom SF} = \frac{16}{30 \times 60\%} = 0.89$$

SPACE FACTOR FOR ACADEMIC LABORATORIES. The term academic laboratory is used in contraposition to the term engineering/mechanical laboratory below because of the large difference in space requirements. The recommended area per student station in laboratories varies from 15 to 150 square feet, however, 40 square feet falls within the parameters recommended for most academic laboratories (Table 53 of Manual Two of Higher Education Facilities Planning and Management Manuals). Then the normative space factor becomes:

$$SF = \frac{40}{20 \times 80\%} = 2.5$$

SPACE FACTOR FOR ENGINEERING/MECHANICAL LABORATORIES. Engineering/mechanical type laboratories, whether they be at the university or the community college level, tend to require more than double the space requirements of most other laboratories. A good median type figure for this kind of laboratory is 100 assignable square feet per station. The normative space factor then becomes:

$$SF = \frac{100}{20 \times 80\%} = 6.25$$

SPACE CRITERIA

The Higher Education Facilities Planning and Management Manuals, which are published by the Western Interstate Commission for Higher Education, provide one of the best sources of information on space criteria. It is recommended that the manuals be used for further information or assessments. In addition, the Alaska Commission on Postsecondary Education is always ready to respond to queries on facilities matters.

INTERIOR SPACE CHARACTERISTICS

NET-TO-GROSS RATIO

A Norm: 67% of the gross area of a building is assignable

The net-to-gross ratio relates the assignable area of a building to its gross area. It tends to be an indicator of the design efficiency of a building. The larger the percentage the more efficient the building becomes, at least in theory. The greatest import of the net-to-gross ratio is in planning new buildings and in the major renovation of old buildings.

The net-to-gross ratio is an important managerial statistic. It should range from 65% to 75% depending on the type of building. The nationwide net-to-gross ratio of the 1974 HEGIS Survey was 66.7%. A ratio of less than 60% is cause for concern and warrants a determination as to whether design or uniqueness of the facility warrants such a low ratio.

$$\text{Net-to-Gross} = \frac{\text{Assignable Square Feet}}{\text{Gross Square Feet}}$$

PROGRAM DEFINITIONS

Instruction Program. The instruction program consists of those activities whose outputs are eligible for credit in meeting specified curricular requirements leading toward a particular postsecondary degree or certificate granted by the institution.

Organized Research Program. The primary objective of an organized research program is the creation and dissemination of new knowledge. It consists of activities that have been specifically organized to produce research outcomes commissioned by an agency either external to the institution or authorized by an organizational unit within the institution.

Public Service Program. Public service activities are established to make available to the public the various unique resources and capabilities of higher education. The objective of a public service program is to provide services that are beneficial to groups external to the institution.

Academic Support Program. The objectives of the academic support program are to provide support services that are an integral part of the operations of the primary programs through the retention, preservation, and display of materials, or to provide services that directly assist the academic functions of the institution.

Student Services Program. The overall objective of the student service program is to contribute to the student's emotional and physical well-being, outside the context of the formal academic program. Student housing is included in this program.

Institutional Support Program. The institutional support program consists of those activities that provide operational support for the day-to-day functioning of the organization. The overall objective of the institutional support program is to maintain the institution's organizational effectiveness and continuity.

Independent Operations Program. The independent operations program is established to collect those activities that may be viewed as not related directly to the objectives of the institution of higher education.

Unassigned (For Assignable Areas Only). This category is limited to classifications of facilities that are not in use at the time of the inventory. This particular program is unique to the facilities universe.

INSTRUCTION, RESEARCH AND PUBLIC SERVICE SUBPROGRAMS

This area contains research and public service, as well as instruction subprograms. The research might best be described by the term "commissioned research." It does not include research as generally used to describe the academic function of advancement of knowledge. Routine departmental research is an inherent part of the instruction program. Thus, only a part of the research taking place is identified and reported separately.

Public service subprograms can be expected to show very little space because the space used for the programs is already assigned to the primary programs. The changing complexities and frequent short duration of these activities make proration of space impractical.

Definitions of subprograms for this table follow:

General Academic Instruction. This subprogram consists of instructional program elements operating during the standard academic term (as defined by the institution) that are part of a formal degree or certificate curriculum and are managed by the regular academic departments.

Occupational and Vocational Instruction. This subprogram consists of those activities established primarily to provide instruction in nonacademic disciplines. This subprogram is intended primarily for use by institutions offering two-year (or less) terminal degree programs for vocational certification in the trades and paraprofessional areas.

Special Session Instruction. This subprogram consists of those instructional activities that offer credit toward a formal degree or certificate and are in operation during summer session, interim session, or other period that is not common with the institutions's regular term.

Extension Instruction (for credit). This subprogram consists of all those instructional activities that are managed separately by an extension division (or similar agency within the institution) and are applicable toward a formal degree or certificate.

Institutes and Research Centers. This subprogram consists of all those research-related activities that are part of a formal research organization typically created to manage a number of research efforts.

Individual or Project Research. This subprogram consists of those research activities that are normally managed within the academic departments. This subprogram consists of the various research-related activities that have been created as a result of a contract, grant, or specific allocating of institutional resources to conduct a study or investigation of a specific scope. Generally, such activities may be identified with the principal investigator and should be coded within his assigned discipline. Activities within this subprogram are normally of a temporary nature, i.e., created for a specified period of time, as contrasted to the more permanent nature of the research organizations within the institute's and research center's subprogram.

Community Education. This subprogram consists of activities that are managed within the academic departments or elsewhere within the institution to provide continuing education, i.e., non-credit instructional services, to members of the community other than matriculated students. (Definition abbreviated.)

Community Service. Community service activities are managed either within the academic departments or elsewhere within the institution and have been established to provide general public services excluding instructional activities to the community at large or special sectors within the community. Community service is concerned with making available to the public various resources and unique capabilities that exist within the institution. Examples of community service may be conferences and institutes, general advisory services and reference bureaus, urban affairs, international affairs, radio and television, consultation, and similar activities. (Definition abbreviated.)

Cooperative Extension Service. This subprogram consists of all those activities established as the result of cooperative efforts between the university and outside agencies, e.g., agricultural extension, urban extension, and is intended primarily for land-grant colleges and universities. The distinguishing feature of these activities is that the programmatic and fiscal control is shared by the institution with one or more governmental units. (Definitions abbreviated.)

ACADEMIC SUPPORT SUBPROGRAMS

The objectives of the academic support program are to provide support services that are an integral part of the operations of the primary programs. Definitions of subprograms of the academic support program follow:

Libraries. This subprogram consists of all activities that directly support the operation of a cataloged or otherwise classified collection of published material.

Museums and Galleries. This subprogram consists of all activities established to provide services related to the collection, preservation, and exhibition of historical materials, art objects, scientific displays, etc.

Audio/Visual Services. This subprogram consists of those activities associated with providing audio and/or visual materials to support the academic programs of the institution.

Computing Support. This subprogram consists of those activities established to provide computing support to the primary programs.

Ancillary Support. This subprogram consists of those activities that provide support services to the primary programs and are not appropriately classified with the previous subprograms. Such ancillary support activities, when they exist, normally provide joint services to the instruction, organized research, and public service programs, e.g., teaching hospitals, demonstration schools, and general glassblowing shops.

Academic Administration and Personnel Development. This subprogram consists of all activities that provide administrative support and management direction for the primary programs. The intent of this subprogram is to provide a well-defined identification of the management function, e.g., department chairmen, college deans, and associated support staff.

Course and Curriculum Development. This subprogram consists of those activities established to accomplish the planning and developmental activities for future instruction programs. The intent of this subprogram is to separate initially from the current operational aspects of the instruction program those activities that may result in instructional offerings at some point beyond the current budget period. This subprogram may be thought of as reflecting investment costs for future instruction program elements.

STUDENT SERVICES AND INDEPENDENT OPERATIONS SUBPROGRAMS

Student service subprograms contain many of the activities formerly identified as auxiliary services. They are described as follows:

Social and Cultural Development. This subprogram consists of all those activities that have been established to provide for the student's social and cultural development outside of the degree curriculum, e.g., areas that house student activities, cultural events, student organizations, recreation, intramural athletics, intercollegiate athletics, and student unions.

Supplementary Education Service. This subprogram consists of those activities that have been established primarily to provide matriculated students with supplemental instruction outside of the normal academic program. Generally, activities within this subprogram are established to provide remedial education service as contrasted to instructional activities that are a part of the degree curriculum.

Counseling and Career Guidance. This subprogram consists of those activities established to provide counseling services, career guidance, and placement services for the student body.

Financial Aid. This subprogram consists of those activities established to provide financial aid and assistance to students.

Student Support. This subprogram consists of those activities established within the institution to provide convenience services to the student body or services to special student groups. It includes areas that house such activities as student housing, health services, veterans assistance, disadvantaged assistance, food services, and retail services and concessions.

The two subprograms of Independent Operations are:

Institutional Operations. This subprogram includes those activities that represent operations owned or controlled by the institution and are foreign to, or independent of, the institution's mission.

Outside Agencies. This subprogram consists of those activities that are controlled or operated by outside agencies but are housed or otherwise supported by the institution.

Faculty and Staff Services. This subprogram consists of those activities established to provide support services for the faculty and staff.

Community Relations. This subprogram consists of those activities that have been established to maintain relationships with the general community, the institution's alumni, or other constituents, and to conduct activities related to development and fund raising, e.g., alumni office, public relations office.

The Unassigned category is unique to the facilities universe. At the time the facilities manual was developed, the eighty series was unused and a program definition to identify areas which represented a potential source of additional space to meet future needs was needed. Later changes in the program structure have designated this series as scholarships and fellowships. The two categories of unassigned space are:

Capable of Use. This category is limited to rooms that are not in use but are capable of use at the time of the inventory.

Incapable of Use. This category is limited to rooms that are not in use at the time of the inventory because they are incapable of use. This includes areas under renovation, as well as unfinished areas which are capable of being finished.

INSTITUTIONAL SUPPORT AND UNASSIGNED SUBPROGRAMS

The institutional support program contains most of the space previously assigned to the general organizational unit. All of the non-academic administrative type functions of the institution are included in this program. Its subprograms are:

Executive Management. This subprogram consists of all central executive level activities and other activities concerned with the management and long-range planning of the entire institution, as contrasted to any one program within the institution. It includes areas that house such central operations activities as legal services, executive direction (the governing board, the chief and senior executive officers), analytical studies, institutional research, long-range planning, etc.

Fiscal Operations. This subprogram consists of those central operations activities related to fiscal control, investments, and functional program elements related to the fiscal operations of the institution.

General Administrative Services. This subprogram consists of those activities established to provide central administrative services to the institutional support program, e.g., admissions, registrar, administrative data processing, and functional program elements related to student records and staff personnel.

Logistical Services. This subprogram consists of activities established to provide procurement services, supply and maintenance of provisions, and the orderly movement of support materials for the campus operation. Included within logistical services are central activities related to the environmental health and safety of the staff and students.

Physical Plant Operations. This subprogram consists of those activities established to provide services related to the campus grounds and facilities.

ASSIGNABLE AREA CLASSIFIED BY ROOM TYPE

How much space should be allocated to each type of room is a question which has concerned builders from the beginning of time. A propitious allocation may become a major factor in the success of the activity which is housed in a facility. The question frequently faced by a college administrator is what available space should be reallocated and what new space is needed to provide an appropriate environment for the accomplishment of the institution's educational objectives. The Higher Education Facilities Planning and Management Manuals are a source of valuable information in this area. Averages of a large number of institutions can serve as a base point for further considerations. The table below shows statewide ratios expressed as a percentage of the total assignable space. The norm shown for each room type represents the national ratio (expressed as a percentage of total space) as computed from the 1974 HEGIS Survey.

Room Type *	1976	1975	1974	1973	1972
Classroom --Norm 8.0 (Series 100)	7.9	7.8	8.0	8.1	8.2
Laboratory --Norm 14.5 (Series 200)	15.0	14.8	15.3	15.1	15.7
Office --Norm 13.0 (Series 300)	13.7	13.4	13.3	13.3	12.8
Study --Norm 6.8 (Series 400)	7.1	7.0	7.1	6.9	7.0
Special Use--Norm 8.9 (Series 500)	7.3	7.5	7.5	8.0	7.9
General Use--Norm 12.0 (Series 600)	12.6	12.4	12.5	12.3	12.6
Supporting --Norm 6.5 (Series 700)	5.9	6.2	3.8	3.8	3.5
Medical Care-Norm 1.4 (Series 800)	1.7	1.7	1.8	1.9	1.5
Residential--Norm 26.7 (Series 900)	27.9	28.5	29.6	30.0	30.8

*These norms do not apply to the community college system because these institutions lack housing and other auxiliary type space.

ASSIGNABLE SQUARE FEET PER STUDENT STATION FOR CLASSROOMS

A Norm: 16 assignable square feet per station

The above norm is based on the use of large armchair desks in a forty station classroom. The square feet per station may vary from 9 for auditoriums equipped with small armchair desks to 30 for seminar rooms equipped with tables and chairs. Obviously, the size of the room, its shape and the type of seating determines its capacity.

The Higher Education Facilities Planning and Management Manuals (page 62 of Manual Two) recommend assignable square feet per station for various size classrooms and seating types. An excerpt follows:

Assignable Square Feet per Station Criteria

Number of Stations	ASF for Tables and Chairs	ASF for Armchair Desks Small	ASF for Armchair Desks Large
10 - 19	20 - 30	18	22
20 - 29	20 - 30	16	20
30 - 39	20 - 25	15	18
40 - 59	18 - 22	14	16
60 - 69	18 - 22	13	15
100 - 149	16 - 20	11	14
300 +	16 - 18	9	12

ASSIGNABLE SQUARE FEET PER STUDENT STATION FOR CLASS LABORATORIES

Although average square footages and average student station sizes of laboratories are used as guides, the fact still remains that there is no "average" class laboratory. Institutions offering only a liberal arts and science program with education and business curricula tend to have small laboratories and lesser student station sizes than do those institutions that support agriculture and engineering curricula. Manual Two of the NCHEMS Planning and Management Manuals provides square footage criteria both by discipline and by level. Some examples are:

Discipline	Level	ASF
Soil Science	Upper	40-50
Architecture	Upper	50-60
Biology	Lower	30-40
Business	All	20-30
Education	All	25-35
Fine Arts	All	30-50
Letters	All	15-25
Mathematics	All	20-30

Discipline	ASF
Business Tech	25-40
Data Proc Tech	50-80
Health Svc Tech	25-50
Drafting	50-60
Automotive	100-150
Welding	80-120
Natural Sc Tech	35-60
Public Svc Tech	25-35

BUILDING CHARACTERISTICS

OWNERSHIP OF BUILDINGS

Each institution categorizes its buildings under one of eight categories which best describes the method by which the building is made available to the institution for use. Data are compiled and tabulated by gross square feet. The eight categories used are titled and defined as follows:

1 Owned in fee simple.

2 Title vested in the institution and being paid for on an amortization schedule.

3 Title vested in a holding company or building corporation to which payments are being made by the institution, title will ultimately pass to the institution. (Includes lease-purchase arrangements.)

4 Not owned by the institution, but leased or rented to the institution at a typical local rate.

5 Not owned by the institution, but made available to the institution either at no cost or at a nominal rate.

6 Not owned by the institution, but shared with an educational organization that is not a postsecondary institution.

7 Not owned by the institution, but shared with another postsecondary educational institution.

8 Other (e.g., not owned by the institution, but shared with a non-educational institution).

CAPITAL INVESTMENT IN BUILDINGS

Capital investment refers to the cost of construction of a building rather than the purchase price, if purchased. The term tends to be more interesting than meaningful for most purposes because the data often span a hundred years of construction. When compared with replacement value, such data take on more meaning. The replacement value should represent the cost of construction of an equivalent amount of space. In most cases, value is computed by applying the current cost of construction to the gross square feet of a building. The replacement value should be considered an approximation rather than the real cost of replacement of the buildings on a campus.

AGE OF BUILDINGS

This category should include the age of buildings. While much data may be interpreted as conveying some indication of the modernity of a campus, such indication may be erroneous to the extent that the age of a building may not reflect renovation to modernize its facilities.

CONDITION OF BUILDINGS

The need for academic facilities involves a variety of factors. Among these are enrollment trends and the adequacy and condition of existing academic space. Enrollments in institutions of higher education increased 126 percent from 1960 to 1970, nationwide. At the University of Alaska, systemwide enrollment in 1978 showed a 12 percent increase over enrollment in 1977. Enrollment growth and other factors will continue to generate a need for new facilities at some institutions. In a period of strained institutional budgets and rapidly rising construction costs, the condition of existing facilities becomes a vital factor.

The facilities manual describes building condition under six categories, which permit a definitive classification of building needs. A description of these categories is provided on the following page. Institutions are urged to involve their professional engineering and building management staff to derive an assessment based on the best judgment of all concerned. One might consider that only a team of architects and engineers would be competent to make such assessments. An expert assessment would be nice to have, however, the fleeting validity of any assessment brought about by the lead time from concept to construction negates allocation of resources for such general purposes. Admittedly, the use of the best judgment of users may not produce an absolutely accurate result for a particular building but the overall evaluation of all buildings tends to be realistic and sufficiently reliable to permit positive planning.

BUILDING CONDITION

1. **Definition**. The physical status and quality of the building at the time of the inventory, based on the best judgment of those responsible for campus development.

2. **Description**. This building characteristic has the following catgories:

1 - Satisfactory

2 - Remodeling A

Requires restoration to present acceptable standards without major room use changes, alterations, or modernizations. The approximate cost of "Remodeling A" is not greater than 25% of the estimated replacement cost of the building.

3 - Remodeling B

Requires major updating and/or modernization of the building. The approximate cost of "Remodeling B" is greater than 25%, but not greater than 50% of the estimated replacement cost of the building.

4 - Remodeling C

Requires major remodeling of the building. The approximate cost of "Remodeling C" is greater than 50% of the replacement cost of the building.

5 - Demolition

Should be demolished or abandoned because the building is unsafe or structurally unsound, irrespective of the need for the space or the availability of funds for replacement. If a building is scheduled for demolition, its condition is recorded as "demolition" regardless of true condition.

6 - Termination

Planned termination or relinquishment of occupancy of the building for reasons other than unsafeness or structural unsoundness, such as abandonment of temporary units or vacation of leased space. If a building is scheduled for termination, its condition is recorded as "termination", regardless of true condition.

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